An Oration
ON
SEX IN EDUCATION.

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MR. PRESIDENT AND GENTLEMEN,—When that eccentric father of a family of geniuses, the late Rev. Mr. Brontë, desiring that his children should speak freely and without timidity, put them behind a mask and questioned them on various subjects, he was told by his son Branwell, then seven years old, in answer to one of his interrogations, that the best way of knowing the difference between the intellects of men and women is by considering the differences between them as to their bodies. That deliverance of the precocious boy seemed to his father at the time a wise saying, worthy of being recorded, and I daresay it seems the same to us as medical men to-day; but it is incontestable that there are now large numbers of cultivated persons to whom it must sound as foolishness, and a mere infantile echo of a barbarous prejudice. Their reply to Mr. Brontë's question would be that it is impossible to distinguish between the intellects of men and women, as there is no difference between them. Bodily differences cannot be overlooked; they are still obtrusive and are admitted. Certain emotional differences are perhaps conceded; but, as regards intellect, we are told that in its pure atmosphere all gross sexual characteristics disappear. The intellect of woman, it is maintained, except in so far as it has been enfeebled by long ages of subjection, is as good as that of man, if not better. And even where this extreme view is not theoretically held, it is often practically acted on, for those who admit that there are certain differences between the male and female intellect still not rarely advocate the coequal and coördinate employment of men and women in all intellectual exercises and pursuits. There is a growing tendency around us to ignore intellectual distinctions between the sexes, to assimilate the education of girls to that of boys, to throw men and women into industrial competition in every walk of life, and to make them compeers in social intercourse and political privileges. And as to my thinking this tendency is unphysiological, and likely, if indulged, to lead to some unfortunate results, I seize the opportunity which, by your kindness, I enjoy this evening to vindicate the wisdom of Master Branwell Brontë, to insist that there are differences between the intellects of men and women, and that these are best understood by a study of the differences in their bodies, and to suggest that forgetfulness of these differences is already doing injury in one department of education—I mean the high-school education of girls.

Now, to catalogue in the briefest way the bodily differences between men and women which underlie their intellectual disparities would be exhaust the time at my disposal. They are universal and intimate, and involve every organ and tissue. They extend from cuticular appendages to the marrow of the bones, from the crown of the head—for, according to Broca, the female cranium is less elevated than that of the male—to the sole of the foot; for, according to Delaunay, woman has a plantar arch flatter than that of men, which perhaps accounts for her partiality for high-heeled boots. I shall not attempt such an extensive anatomical survey. My present purpose will be served by directing your attention to certain sexual differences in one bodily organ—the brain,—differences which have been greatly lost sight of, which much require further investigation, but which are of peculiar significance in connexion with intellectual manifestations.

And first amongst cerebral differences between the sexes I would refer to mass and weight, qualities with which one almost insensibly associates power and strength. Now, it is a matter of common observation that women have smaller heads than men, and it is a matter of scientific observation that in all peoples and races, without exception, the absolute weight of the entire brain is on the average greater in men than in women, though of course individual women do sometimes possess larger and heavier brains than individual men. But it is also a matter of scientific observation that there is a correlation between brain weight and stature, and, laying hold of this fact, the advocates of women's rights and mights have argued that the deficiency in her brain weight when compared with that of man is no more than is to be accounted for by her fewer inches. But this position is quite untenable. I do not know a trustworthy standard of the brain weights of healthy natives of this country to which to appeal, but I can submit to you a table showing the results of the weighing of the brains of a large number of insane persons, all English, Scotch, or Irish, but mostly English, which, in this relation, is absolutely reliable. In this table are summed up the brain weights

TABLE I.—*Brain Weight.*

Sexes.	Average weight of brain.		Average height.			Excess of male over female brain wght.		Excess of male brain weight after allowance for height.	
	Grms.	Ounces.	Metres.	Feet.	Inches.	Grms.	Ounces.	Grms.	Ounces.
945 Males ..	1350·54	47·64	1·702	5	7	127·68	4·50	29·71	1·05
655 Females	1222·86	43·14	1·575	5	2	—	—	—	—

of 1600 persons—945 males and 655 females—ranging from ten to eighty years of age, the weighing of the brain having been in each case conducted by myself or under my own supervision. You will observe that the brains of males exceeded those of females in weight by 127·68 grammes (or 4·50 ounces) on the average; and that, after allowing for differences of stature—taking 5 ft. 7 in. as the average male height, and 5 ft. 2 in. as the average female height,—there is still an excess of brain weight of 29·71 grammes (or 1·05 oz.) in favour of the male. This is a very substantial difference, and if we recollect that the brain of the ant, of the mental powers of which Sir John Lubbock has spoken in such complimentary terms, declaring that they differ from those of man not so much in kind as in degree, is of the size of a pin point, we shall realise that an extra ounce of brain matter within the human cranium may imply an enormous mental difference. But it is certain that the actual difference in brain weight between healthy English men and English women is much more than one ounce. My table, as I have told you, deals with lunatics dying in asylums, and amongst them organic diseases of the brain, involving loss of substance, are at least twice as frequent in men as they are in women. Women are oftener attacked by insanity, but men oftener die of it. General paralysis of the insane, atrophy and softening of the brain, senile dementia, and other diseases causing wasting of the convolutions, are far more fatal to men than to women, who, when they die in asylums, succumb most frequently to bodily diseases which do not seriously interfere with the nutrition of the brain. And so it comes about that of the brains weighed in the post-mortem theatre of an asylum, those of men are on the average much more water-logged and reduced below their normal bulk than those of women. The effect of organic diseases and the atrophic changes they induce in lowering, in my tables, what is the normal difference between the male and female brain may be statistically demonstrated from these tables themselves. It is from thirty to fifty years of age that the mortality from general paralysis, which destroys four men to one woman, and from other fatal forms of organic brain disease, preferentially attacking men, except, of course, senile dementia, almost exclusively occurs, and it is in this section of life that the sex difference in brain weight in my tables falls to the lowest point at the very time when, under normal circumstances, it ought to be greatest. The average excess of weight in the male as compared with the female brain from thirty to fifty years of age in my tables was 123·5 grammes, or 4·37 ounces, while from twenty to thirty years, when deaths from organic brain disease are rare, it was 169·9 grammes, or 6·01 ounces. All available evidence points to the conclusion that the

male brain exceeds the female brain in weight in this country to an even greater degree than has been hitherto supposed. And that the smaller size of the female brain is a fundamental sexual distinction, and is not to be accounted for by the hypothesis that environment, educational advantages, and habits of life, acting through a long series of generations, have stimulated the growth of the cerebrum in one sex more than in the other, is made clear by the fact that the same differences in brain weight between men and women has been found in savage races. And not only is the male brain heavier than that of the female, but it has a wider range of variation in weight. The very big brains and the very small brains are encountered, just as are geniuses and idiots, giants and dwarfs, more frequently amongst men than amongst women.

I have said that an extra ounce of brain matter within the cranium might involve an enormous mental difference. It would do this were it generally and equally distributed, and it would do so in a still more striking manner were it localised in a certain region of the cerebrum; and there are grounds for believing that there is a difference in the balance of parts in the male and female brains respectively, and this difference I adduce as the second sexual distinction between them. Broca, no mean authority, has declared that the occipital lobes are more voluminous in the female than in the male, and my own observations, published in *Brain* in 1880, confirm, as far as they go, his conclusion, and show that while the frontal lobes are equally developed in both sexes, the parietal lobes corresponding roughly with the motor area of Ferrier are larger in the male than in the female, and the occipital lobes, certainly sensory in their functions, are larger in the female than the male.

The third brain difference between the sexes to which I would allude is one of convolutial arrangement which cannot yet be accurately defined, but which the examination of a series of photographs of brains of men and women, which have been stripped of their membranes, pretty clearly reveals. The brains of women, like their bodies generally, are, upon the whole, more symmetrical than those of men. The difference which I have found in the weight of the hemispheres points to this conclusion, for in males the right hemisphere exceeds the left in weight by 3·7 grammes, and in females by only 2·1 grammes; but pathological considerations as to the regional distribution of wasting in organic diseases forbid me to attach too much importance to this observation, and I prefer to trust to mere ocular inspection, which will, I think, bring home to anyone who diligently uses it the superior symmetry of the female brain, due to its comparative poverty in secondary gyri.

It is in the internal structure of the brain, in the depth and arrangement of its grey matter, in the size, form, and connexions of the cortical cells in different areas, that the most essential differences between the male and female brain in all probability reside; but the internal structure of the brain in this relation is as yet uninvestigated. I may mention to you, however, one fact which suggests some difference in the constitution of the grey matter of the brain in the two. During a very laborious inquiry into the specific gravity of the grey matter of every gyrus of the brain, which I carried out some years ago, I succeeded in obtaining three standard brains of perfectly healthy adults—two men and one woman—killed in accidents, and in these I found that while the specific gravity of the medullary substance of the brain was alike in all in each region—namely, 1044—that of the grey matter varied remarkably. To take the frontal convolutions as an example in the one male, the grey matter of these had a specific gravity of 1037, in the other of 1036, but in the female its specific gravity was only 1034. And not only in the frontal region, but in every convolution the specific gravity of the grey matter was lower in the female than in the male. I do not lay any great stress on the observation of a single case, but in several cases of death during acute insanity, which I examined, in which there had not been time for the establishment of degenerative changes, the specific gravity of the grey matter in every lobe of the brain was lower in the female than in the male, while the specific gravity of the white matter always closely corresponded in the two. In all degenerative diseases of the brain, and especially in senile decay, there is a reduction in the specific gravity of the grey matter, which sometimes falls as low as 1028, in the frontal region; and the fact—if it be a fact—that the grey matter in the female brain is of less density than that in the male brain must mean that it is a less highly nourished and developed tissue.

And there is still another brain difference between men and women which I must submit to you, and that a very momentous one—namely, vascular supply. During the last four years Dr. Sydney Martin and I have, as opportunity has offered, carried on an inquiry as to the size of the great arteries that supply the brain. The details of our observations, which have been conducted by Dr. Sydney Martin with scrupulous care, and by new methods insuring, I believe, great accuracy of measurement, will be communicated to the Royal Society when they are complete; but I may mention now one or two of the results at which we have arrived. We have found that the diameters of the internal carotid and vertebral arteries, taken together, are slightly greater in the male than in the female. Their combined diameter is 8·2 millimetres in the male and 8·0 millimetres in the female; but when the difference in weight of the male and female brain is taken into account, it is found that in proportion to brain weight their diameter is greater in the female than in the male, and so it appears that upon the whole the female brain receives a larger supply of blood in proportion to its mass than does the male brain; but of course it is to be remembered that the blood going to the female brain is poorer in quality than that going to the male brain, and contains only 4,500,000 corpuscles to the cubic millimetre, instead of 5,000,000 in the case of the male. But Dr. Sydney Martin and I have found further that the internal carotid and vertebral arteries, when measured separately, display a marked difference in calibre in male and female brains respectively. In ten male brains of adults free from brain disease, and ranging from twenty-five to thirty-six years of age, the internal carotid arteries had an average diameter of 2·8 millimetres on the right side and 2·75 millimetres on the left side, while the vertebral arteries had an average diameter of 2·2 millimetres on the right side and 1·875 millimetre on the left side; whereas in ten female brains of adults free from brain disease, and ranging from twenty-five to forty-three years of age, the internal carotid arteries had an average diameter of 2·6 millimetres on both sides, while the vertebral arteries had an average diameter of 2·3 millimetres on the right side and of 2·075 millimetres on the left side. It thus appears that the distribution of the blood in the male and female brain respectively varies to a considerable extent. The internal carotid arteries, with their great branches—the anterior and middle cerebral arteries supplying the supra-orbital convolutions and island of Reil, the gyrus fornicatus, the Rolandic area, the angular gyrus, and the first temporo-sphenoidal lobule—are much larger both absolutely and relatively in the male than in the female brain; but the vertebral arteries which supply the occipital and temporo-sphenoidal lobules are larger in the female than in the male brain, and the basilar artery, which is practically a continuation of the vertebrals, is also larger in the female brain, where its average diameter is 2·8 millimetres, than in the male brain, where its average diameter is 2·675 millimetres. It might be thought that the free anastomosis provided by the circle of Willis renders comparatively unimportant differences of calibre in the internal carotid and vertebral arteries, and must equalise the blood currents to the different regions of the cerebrum; but the fact is that the posterior communicating arteries, which, when dilated after the occurrence of any pathological obstruction on the cardiac side of the circle of Willis, maintain the circulation in the brain in tolerable integrity, are incapable while normal, by their calibre and position, of adjusting the balance between the direct currents of the carotid and vertebral arteries, and it is certain that the result of the difference in the diameter of these in the two sexes which I have recorded is this: that the anterior region of the brain is comparatively more copiously irrigated with blood in men and the posterior region in women. And vascular supply is in some degree a measure of functional activity, the flow of blood to an organ or part having always a relation to its working power. But the region of the brain which in men is most richly flushed with blood is that which is concerned, we have reason to believe, in volition, cognitions, and ideo-motor processes; while the region which in women is most vascular is that which is mainly concerned in sensory functions, and we thus see that there is a relation between the size of the cerebral arteries, and what observation has taught us as to the intellectual and emotional differences of the sexes.

The structural differences between the male and female brain, which I have briefly referred to, justify the conclusion that they are organs broadly distinguished from each other, and that they have to some extent different kinds of work to do, and an inquiry into the functional relations of each with other viscera of the body, did time permit of it, would strongly confirm this view. All through life the male brain differs from the female in capacities, aptitudes, and powers. Differences early assert themselves. Thackeray has said that little girls make love in the nursery and practice the arts of coquetry on the page boy who brings the coals upstairs; and as for the page boy, it is certain that his pugnacious propensities are already fully developed and have brought him into conflict with his brother buttons. And differences are most patent of all in the prime of life when man "for contemplation and for valour formed" by "his fair large front and eye sublime" declares "absolute rule," and when woman, "grace in her steps, heaven in her eye, in every gesture dignity and love," stands conspicuous for "softness and sweet attractive grace." And differences subsist to the last. The aged spinster, left in "maiden meditation fancy free," lavishes her altruistic emotions on cat, poodle, or parrot; and the hoary veteran, fidgety and irascible, concentrates his egotistic attention on his own liver. And these differences in brain structure and function, which at every stage of existence separate the sexes, have, as I shall presently show, a special pathological significance at the period when sexual divergence is taking place most rapidly, and when education is being pushed forward with most vigour. Education from first to last can only be safely conducted in the light of cerebral physiology, but unfortunately those charged with the conduct of education too often dispense with that light, or regard it as misleading. It is to point out to you the risks that are run by dispensing with that light at a particularly dark and tortuous part of the educational highway that I am here this evening. I am going to notify for warning and guidance some of the perils to health which seem to me to attend the high-school education of girls, which is now so popular.

I have no wholesale indictment to bring against high schools for girls. They have done good service to sound education, have widely diffused its benefits, have supplanted second-rate boarding and venture schools which were hotbeds of namby-pambyism, and have opened up to girls interests and helpful attainments which were formerly denied them, thus saving some of them from a vapid and weary existence. But, at the same time, it seems to me that these schools have serious drawbacks attending on them, and that their work is apt to involve very grave dangers to health—dangers immediate and prospective—which have not yet been sufficiently appreciated.

Even from an educational point of view, the work done by high schools for girls is not all pure gain. Their eulogists would have us believe that they have led forth great hosts of girls from a wilderness of ignorance and ineptitude into a land flowing with wit and learning. But that is sheer nonsense. What they have done is to conduct them from the unkempt meadows of natural growth into the trim gardens of artificial culture. Excellent are orchids and camellias in their way, but do not let us forget the buttercups and daisies. Before the high-school era dawned girls lived and learned and reasoned in a way, and in introducing them to the higher erudition these schools have withdrawn them to a large extent from homely household occupations which were not without their educational value, and have substituted the dogmatic teaching of the hireling for the precept and example of the mother. So much is this the case, and so impossible is it for growing girls exhausted by five or six hours of school-work and private study daily to make themselves acquainted with domestic economy, that it seems to me essential that high schools, if they are faithfully to prepare their pupils to become efficient wives and mothers, should add housewifery in all its branches to their present curriculum. Two years ago I met in the country a high-school girl who was reading Lucretius for her recreation, but she failed lamentably in the task I prescribed for her—that of boiling a potato. Now I am sure much more of the happiness and wholesomeness of life hinges on the boiling of potatoes than on the interpretation of Lucretius and his dark and doubtful sayings. And not only do high schools for girls deprive their pupils to a considerable extent of home-lore and practice in the simple but captivating arts of the kitchen and the still-room, but they tend to induce in them sameness and narrowness of intellect. These schools cannot vary or adapt their teaching to individual tastes and talents, but have one keynote for all, and so sacrifice to clearness of utterance many delicate inflections and cadences of faculty. They tend to make education mechanical. Then they so absorb the energies of their pupils, and so persuade them of the paramount importance of their school work, that these pupils have neither inclination nor strength to travel beyond their compulsory studies. With brains like wrung sponges, and well assured that there is nothing worth knowing beyond the attainments of the sixth form, high-school girls rarely leave the groove in which they find themselves. It will not be denied that home-reared girls read much more widely than do high-school girls. "They browse unconfined," to quote Mrs. Gaskell, "on the wholesome pasturage of English literature," while high-school girls are stall fed on condensed primers; and the result is that there is often a breezy freshness and interesting diversity about these home-reared girls that contrasts not unfavourably with the dry precision and monotonous uniformity of their more systematically educated sisters.

But it is not about the educational advantages or drawbacks of high schools for girls that I wish to speak, but about the dangers to health which lurk in their aims and methods—dangers very real, very serious, very imminent—all arising out of forgetfulness of sexual differentiation, and out of the futile attempt to educate boys and girls on exactly the same lines.

Now, I do not hesitate to affirm that over-pressure is rampant in high schools for girls in this country to-day. Of course there are high schools and high schools. Much depends on the head mistress. If she is judicious and sympathetic, over-pressure is reduced to a minimum. If she is hard and keen, it is raised to a maximum. But, whatever the disposition of the head mistress may be, over-pressure exists and is promoted by directors jealous of the honour of their schools and not averse to dividends; by parents anxious about their daughters' prospects in life, earnest to obtain the best possible return for fees paid, or not unwilling to hide their own dulness under the lustre of having clever children; and by the girls themselves, who, when the spirit of emulation is stirred in them or the fear of failure conjured up, strain eagerly forward and ignore all warnings and restraints. I willingly admit that in high schools for girls generally there is a sincere desire to avoid over-pressure, and that precautionary measures to prevent it are adopted; and I have no doubt that during the last five or six years there has been considerable mitigation of it, as a consequence of a limit put to the scramble after examinations and certificates. But I am confident that, notwithstanding all precautions and mitigations, over-pressure still prevails in these schools extensively, and sometimes acutely, and that it will prevail as long as they imitate schools for boys, fail to recognise sexual distinctions, and to modify their methods in accordance with these. They are, as I have said, pushed on to over-pressure by certain extraneous forces; but the tendency to it is inherent in their constitution, and will assert itself from time to time with greater or less violence, apart from outside influences, until that constitution is altered. I have no doubt that this statement of mine that over-pressure exists in high schools for girls will be strenuously, perhaps scornfully, denied. These schools have many attractive features, and are doing good work; the girls seen streaming in and out of them look healthy and happy enough, and those who are content to judge by superficial appearances will pronounce them sound to the core. Stethoscopy and endoscopy medically applied are necessary to get at their weak points. Then, again, there are those who believe that over-pressure is merely a medical myth; that there never was or could be such a thing in the beneficent realm of education, and they will of course dispute my thesis. I read some time ago a paper by a distinguished authority on educational subjects, Dr. Emily Bryant, in which she argued that it is impossible to overwork girls, their inherent indolence and frivolity being proof against any stimulus that can be applied to them. Well, I would answer Dr. Emily Bryant that it is possible to overwork horses—witness splints, curb, thorough-pin, and back sinew; and surely girls are not more obdurate than horses. And I would tell her further that a cloud of competent witnesses can be summoned against her, for while many high-school mistresses will doubtless deny

that girls are overworked in the establishment under their care, they will one and all admit that overwork is a contingency against which they have to be constantly on their guard. Some high-school mistresses of the more enlightened type frankly admit and deplore the existence of over-pressure even now. One of them said to me not long ago: "Certainly some girls in the upper forms are delicate, owing to too close application to their studies, and it is terrible to contemplate the ruin that might be wrought amongst them were they to be ruthlessly urged on and subjected to competitive excitement."

For obvious reasons it is difficult to get direct and trustworthy evidence about over-pressure in high schools. These schools are naturally disinclined to permit the exposure of blots on their own escutcheons, and individual cases of over-pressure have to be delicately handled. But, thanks to the kindness and magnanimity of the head mistress of one English high school—one, too, in which special precautions against over-pressure were taken,—I obtained a few years ago a return which I regard as of great interest, and which throws some light on the matter. (See Table II.) The facts on which this return is founded were got at by questions, put and answered in writing, the answers sent in by each girl being afterwards tested by private cross-examination by her form-mistress, and in some cases by communications with parents, so that the return is, I believe, absolutely reliable; and it is certainly not a little remarkable to find from it that of 187 girls belonging to the upper and middle classes, well fed and clad and cared for, and ranging from ten to seventeen years of age, as many as 137 complained of headaches, which in sixty-five instances occurred occasionally, in forty-eight frequently, and in twenty-four habitually. Sir Richard Owen once said to me: "Children have no business with headaches at all, and if you find that these occur frequently in any school, you may depend on it there is something wrong there." And so, I take it, there must be something radically wrong in high schools that produce so copious a crop of cephalalgia. That the headaches dealt with in this return were connected with school work is, I think, made probable by the fact that, while in twenty-six cases they are stated to have occurred in the morning, in as many as seventy-six they are set down as of most frequent occurrence in the afternoon and evening, when, as you will notice, according to an immense majority of the girls, the hardest part of the day's work falls on an already jaded brain. And there are other significant facts in this return, besides those relating to headaches, for you will observe that as many as thirty-seven of the 187 girls were shortsighted, and that four of them exhibited choreic movements. And this return represents no exceptional state of things. Inquiries made quite lately satisfy me that a very large proportion of high-school girls still suffer from headache, that neuralgia is common amongst them, and that they display multifarious indications of nervous exhaustion. It is no infrequent occurrence, I am told, for the more delicate girls, who return after the holidays looking tolerably well, to break down in the middle of the term, to be absent from school for a few days or weeks, to return and struggle on with their work, but finally to shirk the examination at the close of the term. But if we had no evidence of suffering or disability immediately resulting from high-school training as it is now carried on, we, as medical men, should not hesitate to pronounce that training in some respects pernicious, from a consideration of its character alone. Two-thirds of high-school girls will attest that the hardest part of their work—preparation, which involves the opening up of new ground, an advance on what has been already learnt, and effort in surmounting obstacles—has to be performed in the evening, when they are already worn out, at the very time when in the cycle of daily life, their brains are least capable of exertion. And no inconsiderable number of high-school girls will attest that this arduous work of preparation is often carried on until ten, sometimes even until eleven o'clock at night. Within the last month I came upon two girls attending a London high school, bright, clever, ambitious girls of fifteen, high in their classes and determined to hold their places, who admitted that, in spite of all restrictions, they were working up till ten o'clock two or three nights a week, and in one of them I could discern, in stunted growth, round shoulders, and intense nervous susceptibility, the effects of this ill-timed diligence in study. A friend of mine in the north of England tells me that he has recently removed his two daughters from a high school and placed them under private tuition, because he found that they were regularly working up till ten o'clock at night.

The high-school authorities will of course pronounce such proceedings irregular, and endeavour to shift the responsibility for them on to the shoulders of parents. Their rules as to home work look reasonable enough on paper. This work, they will tell us, should be done during the afternoon, either in school or at home; but girls who have been in school from nine till one, using their brains, are not dis-

TABLE II.—HIGH SCHOOL FOR GIRLS.

Form.	No. in form.	Average age.	Which part of your work do you find hardest?	When do you do your home work?	Do you suffer from headaches?	How often do your headaches occur?	At what part of the day do your headaches occur?	Short-sighted.	Muscular twitchings.
VI. and V.	17	17	Home work .. 15 Class work .. — Equal 2	Afternoon .. .. 4 Evening .. .. 2 After. and even. 11	No .. 5 Yes .. 12	Occasionally .. 7 Frequently .. 3 Habitually .. 2	Morning .. .. 2 After. and even. 2 No special time.. 7	3	None.
IV.	25	16	Home work .. 22 Class work .. 1 Equal 2	Afternoon .. .. 5 Evening .. .. 4 After. and even. 16	No .. 3 Yes .. 22	Occasionally .. 9 Frequently .. 9 Habitually .. 4	Morning .. .. 5 After. and even. 14 No special time.. 3	7	None.
Upper III.	19	15	Home work .. 16 Class work .. 1 Equal 2	Afternoon .. .. 4 Evening .. .. 3 After. and even. 12	No .. 4 Yes .. 15	Occasionally .. 9 Frequently .. 5 Habitually .. 1	Morning .. .. 5 After. and even. 10 No special time.. —	6	None.
Middle III.	26	15	Home work .. 7 Class work .. 3 Equal 16	Morning .. .. 3 Afternoon .. .. 6 Evening .. .. 6 After. and even. 11	No .. 3 Yes .. 22	Occasionally .. 11 Frequently .. 7 Habitually .. 4	Morning .. .. 7 After. and even. 12 No special time.. 3	4	One.
Lower III.	24	14	Home work .. 15 Class work .. — Equal 9	Afternoon .. .. 7 Evening .. .. 3 After. and even. 14	No .. 8 Yes .. 16	Occasionally .. 11 Frequently .. 3 Habitually .. 2	Morning .. .. 3 After. and even. 11 No special time.. 3	3	One.
Upper II.	29	13	Home work .. 20 Class work .. — Equal 9	Afternoon .. .. 15 Evening .. .. 4 After. and even. 10	No .. 3 Yes .. 26	Occasionally .. 12 Frequently .. 5 Habitually .. 9	Morning .. .. 1 After. and even. 11 No special time.. 3	5	None.
II.	32	12	Home work .. 19 Class work .. 10 Equal .. .. —	Afternoon .. .. 19 Evening .. .. 3 After. and even. —	No .. 12 Yes .. 17	Occasionally .. 6 Frequently .. 10 Habitually .. 1	Morning .. .. 4 After. and even. 10 No special time.. 3	5	None.
I.	15	10	Preparation in this form is done in the morning. No home work.	Morning 15	No .. 8 Yes .. 7	Occasionally .. 6 Frequently .. — Habitually .. 1	Morning .. .. — After. and even. 6 No special time.. —	4	Two.

posed to resume work immediately after their mid-day meal. They need change, fresh air, and exercise, which in this climate must, for a great part of the year, be taken in the afternoon, if at all; and many of them continue brain work in the afternoon under the veiled form of accomplishments, such as music and drawing. For these reasons, as well as from the claims of family and social intercourse, it comes about that a large proportion of high-school girls postpone their preparation until the evening, when they do it slowly, laboriously, with least benefit and most risk. The work which was calculated to occupy two or three hours is spread over three or four, and perturbs the brain just when it should be subsiding to rest. The time-tables or cards issued to pupils and parents, defining with the utmost nicety the number of minutes that are to be devoted to preparation in each particular subject on each particular day, fixing a maximum duration of home work (generally from two to three hours), which is not to be exceeded without an intimation of the fact to the head mistress, are practically useless, and sometimes worse than useless, for they lead to deception. Not one girl in ten steers by these charts; not one parent in ten reports the transgression of their terms. Girls work at very different rates, and at very different rates in different subjects, and the number of minutes allowed for Euclid, Latin, German, History, or Science respectively, which may be amply sufficient for a girl of nimble wits, may be altogether inadequate for one of slow comprehension, and hopelessly ill-adjusted for one of special gifts. The relation between the time allowed for home work and the amount of home work allotted is often very difficult to discover, and the highly conscientious girl who tries rigidly to adhere to the instructions given will generally find herself at a disadvantage at school. Parents for the most part ignore the school time-tables. They do not always know the exact length of time given by their daughters to home work; it is sometimes secretly prolonged when they supposed it to be finished; and they find that any expostulations as to its amount which they may address to the head mistress are highly distasteful to their daughters, who fear that they will be regarded as stupid or as a drag on the class for failing to accomplish their tasks in the prescribed time, or that blame for over-burdening them will be laid on their form-mistress, and of course blame does not conduce to amiability of feeling towards those who have procured its infliction.

The truth seems to be that the checks imposed upon home work are nominal and not real, and that what high-school authorities have to do is largely to reduce it in amount, and in the case of young girls to abolish it altogether. The drudgery of education should be done in school with skilled assistance, when the brain is in its prime vigour, not at home unaided, or with only precarious parental help, when the brain is already fatigued. I feel strongly that no girl from ten to seventeen years of age should have any forced brain work to do after 7 P.M., and that a reduction is required in the number of hours that high-school girls are now called on to give to brain work. Our brawny colliers clamour to have their bodily labour restricted to eight hours a day. Shall we permit our fragile girls to engage in mental toil for an even longer shift?

I have given prominence to the question of home work in connexion with high-school education, because I regard it as one of the chief evils of the system; but in connexion with the school work there are several topics that are eminently worthy of medical consideration. A criticism of the curriculum and of the subjects taught cannot be undertaken here; but a word must be said about the competition which is still encouraged in some quarters. Nineteenth-century girls at the age of puberty cannot stand competition. It is intellectually and morally injurious to them, and disturbs the equilibrium of health. "Nothing," says Ruskin, "is ever done beautifully which is done in rivalship, nor nobly which is done in pride," and nothing, I would add, is ever done safely by girls which is done in emulation. That should be banished from their education, and marks, places, and prizes tabooed. And examinations, too, which harass and agitate, should be as much as possible avoided. For girls who have to earn their own living examinations may be necessary trials of fitness; but for the bulk of high-school girls they are gratuitous miseries, or mere opportunities of vainglorious display.

I have admitted that in some high schools the authorities are on the alert on the subject of over-pressure, and according to their lights do their best to ward it off. But it is a melancholy fact that some of the expedients resorted to with this purpose tend to aggravate rather than to abate it. One head mistress told me proudly that her practice was, whenever the girls in any form began to get very sluggish and drowsy at their work, to close the books and give them ten minutes' hard drill. She thought I was joking when I said that she had much better put them to bed and give them candle; but I was quite serious, for muscular fatigue is not the remedy for cerebral exhaustion, although it is very commonly believed to be so. Indubitably there is temporary easement in shifting a burden from place to place. A man who has been standing on one leg for some time finds it a relief to change to the other; but the expenditure of nervous energy is going on all the time, and the brain that is wellnigh drained dry needs rest and will not be replenished by merely altering the channel of outflow. Drill is highly to be commended in its proper place—so are gymnastics, so are games; but they will not create a tolerance of mental over-pressure or counterbalance its evils. It is quietism, not athleticism, that has to be preached in high schools in the first place. I have even my doubts about compulsory hockey and cricket in the country on half-holidays. I cannot help thinking that a girl should have just a little scrap of her own life left to her to do with exactly what she likes, and with all respect for physical education—the boom of which is upon us—I have more faith in the life-saving qualities of a good, merry, spontaneous, exuberant romp, than in all its ingenious, elegant, and hygienically designed exercises.

The evils resulting from over-pressure in high schools for girls—whether that over-pressure be due to home work, or competition, or examination strain—are brought about through its influence on the cells of the brain, and it is not difficult to understand how these cells are affected. It is unquestionably true of all cells that when they are in any way stimulated in excess of their powers of taking up nutriment, or deprived of an adequate supply of nutriment, they utilise as food material their own protoplasm, and so induce disordered metabolic processes with subsequent degeneration. In pyrexia, in the presence of which metabolic activity is always increased, we find that the protoplasm of the muscular fibres of the heart and of the cells of the liver passes through a stage of cloudy swelling, indicative of increased activity, which merges ultimately into fatty degeneration. And when to the stimulating influence of pyrexia is added that of toxic materials circulating in the blood, as during typhoid fever and diphtheria, we find that degenerative changes are not confined to the excretory glands and heart, but invade the nerves and muscles generally. Well, it appears to me that the fever of the mind which over-pressure sets up is capable of influencing cell protoplasm in much the same way as ordinary pyrexia. Its effects have not yet been traced out with the same precision. No doubt they differ in degree and distribution, but they are probably much the same in kind. When the cells of the brain are stimulated in excess of their powers of taking up nutriment, as they are during forced mental labour, or when suitable supplies of nutriment are cut off from them, as may be the case during the impairment of digestion which forced mental labour not rarely entails, then the metabolism in these cells is, we may infer, altered, and they degenerate and secondarily induce widespread degenerative changes throughout the system. The group of symptoms which is characteristic of the mental failure which follows upon severe over-pressure, and which may be summed up as acute or apathetic dementia, is almost identical with that seen in cases in which mental failure has followed upon acute specific diseases, and in mental failure of the former kind, not less than in the latter, we have also sometimes dilatation of the heart and changes in the liver, kidneys, and voluntary muscles; and in both kinds of mental failure recovery takes place if the fatty degeneration has not so far advanced that the active protoplasm of the cells is absorbed, whenever the cells which have had extra work thrown upon them are allowed absolute rest, and are placed in favourable conditions as regards nutrition.

I have referred to acute or apathetic dementia as the most characteristic of the pronounced mental changes which severe and continued over-pressure acting on a neurotic subject may induce, and the slight mental changes which are similarly induced are most generally akin to it, and are but the buds of the symptoms which it presents full blown.

Thus it is no uncommon event to hear overworked high-school girls complain that their power of acquisition and attention is impaired, that they take far longer to their work than they used to do, that they cannot remember what they have learnt, that they read their lessons without understanding them, that they sometimes lose themselves and forget where they are, and that what they call "queer thoughts" keep coming into their minds, while the observation of these girls at the same time reveals that they are languid and irresolute, or unusually irritable. Such slight departures from normal mental states for the most part go no further, but are rectified by the holidays; but now and again they advance into that mild coma which corresponds with apathetic dementia. But, besides apathetic dementia, there are, of course, many other mental aberrations to which over-pressure may lead up, the nature of these in each case being determined by the inherited tendencies, antecedents, or environment of the girl. We may have cyclones of mania, or anticyclones of melancholia, hurricanes of morbid impulses, or the settled bad weather of moral perversion. And as regards certain minor mental changes which thus arise, it is noteworthy that they are often concealed by girls who do not comprehend and can scarcely describe them. This is particularly the case with reference to those voluminous mental states described by Dr. Hughlings Jackson which are sometimes the harbingers of epilepsy.

I cannot pretend to classify or describe the vagaries of nervous disturbance that present themselves to medical observation in girls in these days, and in the production of which over-pressure plays some part, but I would name insomnia of the commonest occurrence, often of evil import, sopor or sleep so deep and difficult to break as to be almost cataleptic in nature, neuralgia, chorea, and hysteria. And, besides nervous disturbances, there are many ailments and diseases begotten or fostered by over-pressure which medical men are familiar with in high-school girls in these days. Chief of these are anæmia and general delicacy. Women suffer from anæmia in far larger proportion than men. In the ten years 1881 to 1890 the deaths from anæmia, chlorosis, and leucocythæmia in England and Wales were 33·29 per 1,000,000 amongst men, and 54·83 amongst women. And, as is well known, chlorosis and anæmia show themselves in girls from ten to twenty years of age more frequently than at any other period of life, and may be induced by mental worry or excitement, which causes a diminished production of blood-corpuscles. In his very able investigation into the physical and mental condition of school children, Dr. Francis Warner has satisfied himself that mental stimulus applied to children "does lower their general nutrition." He found that pale and delicate-looking children are proportionately more numerous in schools attended by children of an upper social class and presumably well fed, than in schools attended by children of the poorer class, presumably not well fed; and the only explanation of this he has to offer is that better-class children are subjected to more mental stress than children of a poorer class. A single glance at some high schools, and the complexions of the girls assembled in them, convinces that they are deficient in red corpuscles, however rich they may be in blue stockings.

The anæmia encountered in high-school girls is sometimes due to the direct action of mental tension on the blood-forming apparatus; but it is sometimes due also to the action of that tension on the digestive functions. Large numbers of high-school girls suffer from loss of appetite; a certain number go to school without breakfast. Worn out, they oversleep themselves, and leave scant time for the morning meal; or, after a night of broken rest, they rise unrefreshed, swallow a cup of tea, the neurotic properties of which they have already discovered, but decline solid food, or merely trifle with it. They labour under a gastric disorder now so common that it might receive a distinctive appellation, and be called *anorexia scholastica*, in which the lessened flow of energy from the exhausted nerve centres retards the functions of all the abdominal viscera. Buns in the forenoon, a regular institution at all high schools now, are very well in their way, but they do not compensate for a lost breakfast, and I hold that no girl who has shirked that meal should be allowed to go to school or engage in brain work. It is an axiom that nutrition comes before education.

I have spoken of some of the immediate evil effects of over-pressure in high schools—effects which medical men have long recognised, which parents are beginning to perceive—and I wish now to direct your attention to what will probably be its remote effects if it be allowed to go on—effects for which we must wait, but which we have grounds to anticipate with some confidence. The ailments of girlhood which we have ascribed to over-pressure do not always end with the cause that induced them, but are apt to plant themselves permanently in the system they have infested, or to blossom into something worse. The headachy girl is not unlikely to grow into the migrainous and invalid woman. A voluminous mental state may develop into epilepsy, somnambulism may lead to hysteria, insomnia lay the foundation of insanity, and anæmia at the growth period may entail lifelong debility. Over pressure operates upon the high-school girl at a great epoch of her life—at puberty and during the pre- and post-pubertal periods—when momentous changes are taking place in her body and mind, and when a wave of irritability sweeps through her nervous system. The increase of stature and weight of the girl, according to Dr. Bowditch's recent observations, goes on much more rapidly than that of the boy from the tenth to the fourteenth year, and, while her pelvis is expanding, her special organs and mammæ and sebaceous glands are developing and becoming more vascular, and her physical energies are gathering strength under the governance of new impulses, there exists in the girl a special proclivity to disease, and to the assumption of morbid tendencies. This epoch from the tenth to the seventeenth year is unquestionably the plastic period—it is the golden opportunity for education; but the education that goes on then is not limited to the higher cerebral centres, as teachers fondly imagine, but pervades the tissues. Functional habits are being everywhere formed, and vicious habits are not unlikely to be contracted by certain organs if habits of thought are too assiduously practised. The grand truth to be inculcated in all high-school authorities is this—that they have to deal with girls at a period of life when vital resistance is greatly reduced, when the liability to disease is proportionately augmented, and when physiological indiscretions are peculiarly hazardous.

The proof of this can be readily supplied. Let us examine the incidence of zymotic affections upon the sexes. Throughout life, in every quinquennium, the mortality of males from small-pox exceeds that of females, and that in a very marked degree, except in one quinquennium from the tenth to the fourteenth year, when the female exceeds the male mortality, being again but very slightly behind it in the succeeding quinquennium from the fifteenth to the nineteenth year. At all ages the male death-rate from enteric fever exceeds that of females, but the female mortality is very considerably higher from the third to the twentieth year of life. In infancy and also in old age the male mortality from diarrhœa and dysentery exceeds the female mortality, but in the child-bearing period, from fifteen to forty-five years of age, the mortality is distinctly higher amongst females. And even more striking in this connexion are the statistics of phthisis than those of zymotic diseases. As you will notice in this table, phthisis

TABLE III.—*Phthisis: Mean Annual Death-rate per Million living at successive Age Periods and per "Standard Million" at all Ages during the Ten Years 1881–1890.*

AGES. All ages.	MALES. 1876 Standard million.	FEMALES. 1602 Standard million.
0–	527	493
5–	250	322
10–	349	712
15–	1317	1839
20–	2350	2355
25–	3083	2850
35–	3614	2748
45–	3574	2085
55–	2863	1496
65 and upwards ...	1534	830

is more fatal to males than females under five years of age; but then a change takes place, and from five to ten it is much more fatal to females than to males, while from ten to fifteen it is more than twice as fatal to females as to males. From fifteen to twenty phthisis is still much more fatal to females than to males; from twenty to twenty-five the mortality from it is exactly equal in the two sexes, and

from twenty-five to thirty, and at all subsequent ages, the mortality from it is much greater amongst males than amongst females.

Now this distribution of phthisis mortality, especially when viewed in connexion with the fact that the reduction in it, which is happily going on at all ages, has been proportionately less of late years amongst females than amongst males from five to fourteen, is highly significant. It is not of course suggested that high-school operations have had anything to do with this diminished reduction. The total number of girls attending these schools is so small in comparison with the population that no amount of mischief they could do would appreciably affect the Registrar-General's returns. But the fact that there is a special proclivity to phthisis in girls from five to twenty years of age, and that girls between these ages are not sharing as fully as boys in the benefits of the preventive measures which we owe to modern sanitation, viewed in connexion with the conditions of high-school work, suggests very pointedly that one of the remote evils of over-pressure in them will be the propagation of phthisis in those who have been subjected to that over-pressure. The nervous erethism which is characteristic of the growth period in girlhood obviously much increases the liability of the sex to phthisical disease, and as over-pressure aggravates that nervous erethism, it must still further increase that liability. The connexion between states of the nervous system and pulmonary tuberculosis has not yet been clearly defined, but this much may be taken as established, that nervous depression and exhaustion alike open wide the door for the invasion of the tubercle bacillus. And so it is that the nervous exhaustion due to over-pressure in high schools for girls may be expected to induce a peculiar vulnerability of the pulmonary tissue, which must be intensified by the conditions of work in these schools. The in-door life of the girls, their sedentary habits, and the stooping posture in which they pass much of their time, bring the lungs into a state that is favourable to tuberculous infection. The lungs are comparatively immobile, and there is consequent inactivity of the respiratory current in them, with a tendency to congestion and catarrh.

If it were our object to secure an abundant harvest of phthisis, I do not know how we could better set about it than by providing for general over-pressure in schools for girls. Keep a large number of town-bred girls in a constant state of nervous tension, so as to abbreviate sleep and impair appetite, deprive them as much as possible of fresh air, insist on their writing and poring over books for prolonged periods, and scatter amongst them a few cases of tubercular disease, and you will inevitably in the fulness of time have a rich growth of phthisis. My own experience is necessarily of the most limited description, but I have seen a case of phthisis in a high-school girl and two cases in high-school mistresses which I was disposed to attribute to high-school life; and of this I am sure, that phthisis must be one of the most certain and disastrous of the more remote effects of the over-pressure of girls during their growth period.

But the special proclivity to disease of girls at the growth period, and the influence of the nervous erethism by which they are then visited, may be traced out not only in zymotic diseases and in phthisis, but in nervous diseases themselves. Suicides which spring from causes identical with those that are productive of insanity, and which are an expression of mental disorder, are four times more numerous amongst men than women, and the male death-rate from suicide is much greater than the female at all ages, except, strange to say, from fifteen to twenty, when the female death-rate rises considerably above the male. The rate of increase of suicides during the last twenty years has been much higher amongst women than amongst men. Chorea, which is at all ages more fatal to females than to males, reaches a rate of mortality amongst females from ten to twenty years of age that is phenomenal when contrasted with the rates at other ages and in connexion with the mortality from this disease; it is of extreme interest to note that, while the male mortality due to it has declined during the last thirty years, the female mortality has risen, and has risen rapidly, during the last ten years. Chorea is seldom fatal, and the increase of the death-rate from it amongst girls must betoken a large increase of the malady in its milder forms. And chorea, be it remembered, is a malady which, perhaps more than any other, may be directly attributed to over-pressure and nervous strain.

I might go on enumerating nervous and other diseases the mortality from which mounts up from ten to twenty years of age in girls, but enough has been said to show that there is a dangerous instability of the nervous system at this epoch. And indeed the most convincing proof of this instability is to be found, not in the mortality returns, but in the extraordinary prevalence, during this section of female life, of functional nervous disorders, which do not kill, but cripple and perplex, and are often the source of misery long drawn out. Man is at all ages more prone than woman to organic diseases of the nervous system, but woman is more prone than man to certain functional disorders, and especially to such functional disorders as display themselves about the period of puberty. Then it is that women succumb to epilepsy, neuralgia, hysteria in all its protean shapes, chorea, migraine, neurasthenia, the milder forms of insanity; then it is that the nervous system is unstable and explosive in a peculiar degree, and especially liable to be influenced, for weal or woe, by the treatment to which it is subjected. Judicious treatment at this time gives it balance, and perhaps steadies it for life. Injudicious treatment—and what treatment can be more injudicious than over-pressure?—either makes it topple over at once or sets it swaying in a way that must mean final overthrow on the occurrence of any further interference, however slight. Let high-school authorities ponder all this.

It has just been mentioned that men are much more liable than women to gross structural lesions of the nervous system, including the various forms of inflammation of the brain and spinal cord, and their membranes, paralysis, locomotor ataxia, muscular atrophy, and abscess and tumours of the cerebrum; and there can be little doubt that their greater liability to these lesions is dependent upon—firstly, the innate higher metabolic activity of their nerve centres; and, secondly, their greater exposure, during the struggle for life, to the causes of nervous disease. Women owe their comparative immunity from organic nervous disease to their anabolic habit, and to the comparatively tranquil and sheltered lives which they have led. But if all this is to be altered, if women are to be made as katabolic as possible, and are to take part in the struggle for life on equal terms with men, then it follows that they will have to a great extent to sacrifice the comparative immunity from organic nervous diseases which they have hitherto enjoyed. During the ten years 1881 to 1890 409 men per million living died in England and Wales from the effects of fractures of bones, but only 100 women per million living so died. The explanation of this is clear. The number of men engaged in occupations which expose to accidents is to that of women engaged in such occupations as 4 to 1. But if in our wisdom we ordained that men and women should share equally in manual labour of all sorts, it is indisputable that we should have the mortality from fractures amongst women mounting to as high a point as it has now reached amongst men; nay, the probability is that it would greatly transcend that point, for the employment of women in all sorts of labour would probably increase the number of accidents, while their anatomical configuration would involve their suffering more severely from their effects. During the ten years 1881 to 1890 2·69 men per million living died of tetanus in England and Wales, but only 0·84 women per million living; clearly because for every one woman who in her employment has to handle earth three men have to do so. Expose men and women in an equal degree to inoculation by the tetanus bacillus and they will in equal degree perish from its attacks. Now will it be doubted that the same thing holds good with regard to other causes of disease which operate upon the nervous system, and that the comparative exemption of women from organic nervous disease is to be attributed largely to the fact that they have not been exposed to these causes to anything like the same extent as men? Five men suffer from the motor form of writer's cramp for every one woman who so suffers, and the explanation of this lies on the surface, in the fact that men are employed in writing far more numerously than women. Four men die of general paralysis of the insane for every one woman who so dies. Is it not feasible to suppose, then, that women owe their comparatively small liability to this fell malady to their comparative freedom from the stress and striving of professional and business life, which so often lead up to it in men? To make women katabolic—and that is, I maintain, what high-school education tends to do, to throw them into competition with men, and that is, I maintain, what some high-school education aims at—is to ensure to them a largely increased liability

to organic nervous disease. And so over-pressure from ten to seventeen years of age may have amongst its remote consequences, not only the reproduction in the same or modified forms of the functional nervous disorders which so often manifest themselves at that period, but a crop of gross nervous degenerations, which have, up to this time, been rarely seen in women. And notwithstanding all Weismann's arguments, I would say, "Woe betide the generation that springs from mothers amongst whom gross nervous degenerations abound!"

The study of the effects of over-pressure, immediate and remote, on the monthly rhythm, and on the fitness and capacity of the woman to reproduce the species and to bear healthy children—health implying both bodily and mental vigour—must be kept for separate examination at some other time. So also must a study of the effects of secondary over-pressure, as applied, in colleges and halls, to young women at from eighteen to twenty-four years of age. Admirable culture is supplied in these colleges and halls; but they, too, have their risks, notwithstanding that their pupils are all picked lives. The suicide of a pupil, who had just undergone examination at one of them, was reported two months ago. I must, however, even now express my belief that the University of St. Andrews, in deciding, as it has lately done, to open all its classes in Arts, Science, and Theology to women as well as men, has taken not a retrograde step—for our ancestors never did anything so foolish,—but a downhill step towards confusion and disaster. Its now empty benches may be thronged with pupils, its professors may batten for a time on duplex fees; but the attempt to educate young men and women, not only on the same lines but in the same coaches, cannot but prove injurious to both. "What was decided amongst the prehistoric protozoa cannot," it has been well said, "be annulled by Act of Parliament," and the essential difference between male and female cannot be obliterated at a stroke of the pen by any Senatus Academicus. To essay such work is to fly in the face of evolution. Amongst unicellular organisms the conjugating cells are exactly alike, and do exactly the same work in the world; but amongst multicellular organisms they are dimorphic, and from that point upwards differentiation in structure and function goes on. With occasional aberrant variation the sexes diverge from each other, not merely in primary and secondary sexual characteristics, but in functions, not directly associated with sex, as we ascend in the animal kingdom, and it is in the human species that sexual distinctions, bodily and mental, are most marked.

And with this divergent differentiation of the sexes has come more reciprocal dependence and higher harmony. It is no question of superiority or inferiority of the one sex to the other. Each sex is higher; each is lower; together they make up the perfect whole. Separate they are infirm; in union they are strong; in competition they are mutually destructive. It is in the sympathetic accord of the differentiated sexes that human progress can alone be hoped for.

> "He is a half part of a blessed man,
> Left to be finished by such a she,
> And she a fair divided excellence,
> Whose fulness of perfection lies in him."

And blindness to this complementary relation of the sexes, so patent to Shakespeare, it is that leads wise men—wise but ignorant, or contemptuous of biology—to sanction intersexual competition in education, and for subsistence with its ruinous effects. Men and women are constitutionally adapted to do different work in the world. To set them to do the same work is wasteful, and detrimental to the sex that is less adapted to it. It is impossible to contemplate with complacency some of the experiments in this direction which are being carried out, and it is impossible to speculate, from a medical point of view, without apprehension what the outcome of such experiments may be, or what high-school, and college, and hall education may do for the country in a few generations, if they be pushed on with relentless zeal.

Those tall, graceful, lovely English girls whom we see around us so plentifully to-day, and never in the world's history has woman's beauty been so beautiful as it is in England to-day—those tall, graceful, lovely girls are the offspring of mothers who had not the advantage of a high-school education. What will the next generation of English girls be like? I saw a vision once that has haunted me ever since. It was of a score of sweet girl graduates from a celebrated college, standing together in a group on the platform of a provincial railway station, waiting for trains to carry them home at the end of the term. Sweet they were I doubt not; most of them carried musical instruments, but they were not, upon the whole—well, not just—"fairest of the fair" to look upon. I am afraid I shall be called ribald and profane, but I should describe them as pantaloon-like girls, for many of them had a stooping gait and withered appearance, shrunk shanks and spectacles on nose. Let us conserve the beauty of our English girls very jealously. I would rather they remained ignorant of logarithms than that they lost a jot of it.

ABSTRACT OF

The Morton Lecture

ON

THE ETIOLOGY OF CANCER.

By G. SIMS WOODHEAD, M.D.,

DIRECTOR OF THE RESEARCH LABORATORY OF THE CONJOINT BOARD OF THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

MR. PRESIDENT AND GENTLEMEN,—I understand that the Morton lectureship was established by its founder with the view, in the first instance, that the lecturer for the time should gather together and give in the form of a summary any fresh light that may from time to time be shed on the subject of cancer. Beyond this, however, the primary object of the founder was to stimulate thought and research in connexion with a disease the importance of an accurate knowledge of which is at present only equalled by the futility of all the efforts that have been made to elucidate even a few of the problems that a most cursory glance at the subject must at once suggest. We owe to histology and to statistics almost all the knowledge we have hitherto acquired, and most of the answers to such questions as have been solved. The clinician, to whom cancer has been one of the most absorbing studies, has done all that was within his power; but beyond determining the bounds of the periods of life during which it may occur, and the nature of the hereditary predisposition of certain subjects and tissues, this all has been but little. Even the attempts to associate the growth of cancer (and by cancer I shall to-day mean cancer in the strictest limitation of the term) with any specific causal agent have hitherto failed, and I must confess that until quite recently I have remained strongly of opinion that, although cancer may possibly be the result of certain forms of irritation, it can scarcely be looked upon as due to the vital activity of any specific micro-organism, whether animal or vegetable; in fact, I am not yet prepared to depart entirely from this position, though I must acknowledge that comparatively recent observations have been made which, if confirmed, would go far to limit the range of irritants which possibly may give rise to the proliferation of the special tissues with their special arrangement so characteristic of cancerous growths.

What I have to say to-day may be arranged under three heads:—1. The conditions within the tissues that may predispose to the formation of cancerous tumours. 2. What we know as to the nature of the irritants that are now assumed to play a specific etiological part in the production of cancers. 3. What is to be gathered in respect to the treatment of cancer from recent researches on the subject. It has frequently been insisted upon that the nucleus plays a most important part in determining the multiplication of cells. We may say, indeed, that the nucleus is the active part of the cell, in the sense that it is always the first part of the cell to undergo division. From the extraordinary size and distinctness of the nucleus and nucleolus of the cancer cell, some have gone so far as to indicate that these are practically sperm and germ cells respectively. Within these undoubtedly there is during the normal life of the individual a power of multiplication, a power which greatly varies at different stages of this life. As this power dies out under normal conditions a man dies of old age, and it is necessary for the continuance of the species that there should be a recurrence to a process of direct reproduction through the well-nourished ovum and the highly differentiated sperm cell, by the conjuction of which the cycle is recommenced.

Here we have, just as really as in the case of certain parasitic organisms, a kind of cycle or alternation of generation.

More than forty years ago, when Virchow brought forward his epoch-making doctrine that in all pathological as in all physiological processes cells beget their like, he at the same time shadowed forth the idea that, although all cells are begotten of other cells, the progeny only resemble their parents when they are produced under general conditions and surroundings, circumscribed within certain very definite limits. We now regard it as a well-known fact that by varying the conditions of nutrition, the facilities for excretion, and the nature and amount of stimulation or irritation, we can, to a certain extent, control or alter the character of the cells produced by certain tissues. Elsewhere I have indicated that it is necessary to study the epithelial tissues and the connective tissue separately, in order that we may be able to gain some insight into their relation to tumour growth. All epithelial surfaces are covered with a single layer or with several layers of cells, the forms of these cells varying very considerably according to the function that is assigned to them; in fact, they can only become fully developed as the necessity for some special function comes into play. Whatever epithelial cells we examine, and in whatever conditions, it may be accepted that the greater their vegetative power, the less completely is their functional activity developed. We have an exceedingly good example of this in what takes place in the embryo, where, development and growth going on rapidly, the cells are called upon to exert little or no function, and no draft is made on their energy and nutrition for carrying on of such function; the whole of these may therefore be devoted to reproduction. At the same time the connective-tissue cells are extremely active, although they in turn do not become fully developed, as we see from the mucous tissue that is found as the forerunner of the subcutaneous areolar tissue. It is during this period that all the in-foldings of the epithelium that take place in the fœtal tissues occur. Here we have the scaffolding of the whole gland erected long before it is called upon to perform any function; whilst in the developing mammary gland of the adult, when it first becomes active, the initial draft on its resources is in connexion with an active proliferation of the cells of the gland acini, and is not associated directly with any functional activity. During this period of development of the embryo within the uterus, and of the breast at puberty, we cannot describe either of the groups of tissues as being in a *stable condition*, and we can readily imagine that with any great nutritive disturbance, especially when this impairment is due to increased demand on the cells, due to local irritation, it may result in tumour growth.

Why do we get the age distribution of tumours that was insisted upon, now many years ago, by Virchow and Paget? Why are sarcomatous tumours so much more common during fœtal and early life than in old people? Why are the tumours of adult life those which have no great tendency to become malignant—adenomas, cystic glandular tumours, fibroid adenomas, or cystic sarcomas, in which we have always an increase in both sets of tissues, and which vary in one direction or another, becoming more sarcomatous or more glandular according to the age at which they are developed? Why are epitheliomas, as a rule, met with in old age, or rather at the end of adult life? May it not be that similar stimulating or irritating agents are capable of giving rise at different periods of life to these different forms of tumours, and that the essential difference consists in the different nutrient and developmental conditions of the tissues? I shall have something to say against this theory, but for the present let us look at it as affording some explanation of the occurrence of different tumours at different periods of life. In the embryo and during the first years of growth we have as yet an unbalanced condition of the tissues; the building-up process in which the connective tissues are specially concerned is going on at a great rate, and tumours occur in those tissues—the connective tissues,—on which the greatest strain is put under ordinary developmental conditions, and which therefore are, as it were, in a condition of unstable equilibrium; a comparatively slight increased stimulation being sufficient to maintain the vegetative activity at the expense of the true connective-tissue-forming power. In adult life, as has been frequently pointed out, the two sets of tissue may be looked upon as growing equally side by side; they are now both past the great vegetative strain, the connective-tissue framework has been completed, the functionally active gland cells have taken their position and part in the economy of the tissues, and both sets have settled down to their every-day work and to their every-day nutrition; the nutrition and function of the one appearing to be dependent in a very marked degree on those of the other. An increased growth of the one is accompanied by a similar growth of the other, and in both cases the cells are so far stable that their vegetative activity is never excessive. Local irritation or increased blood-supply may set up a localised hypertrophy, as it were; but beyond this we have no tendency to the formation of malignant tumours. During the period at which cancer is most usually developed, but when of course sarcomatous tumours may also occur, the connective tissues have passed their prime. The epithelial tissues have also reached their zenith, and are now on the turn; but, as we know, they have still great vitality, sufficient, indeed, when diverted from the imperfect functional to a vegetative activity, to give rise to very large masses of imperfectly developed epithelial cells which, as in the embryo, appear to have the power of invading the connective tissue. I have long been of the opinion that in classifying cancers and epitheliomas, the age of the patient is not the only factor that had to be taken into account; the organ affected must also be taken into consideration. We know that epithelioma of the skin and mucous membrane-tissue—which function is never highly specialised, but which remains longer than in the more specialised glandular cells—is usually developed later in life than cancers of the uterus and breast in which the function is lost at a comparatively early age. Epitheliomas, for instance, are probably commoner between the ages of sixty and seventy than at any other period.

Some time ago I examined a series of tongues taken from patients of different ages, and afterwards Dr. T. W. Dewar continued the investigation of the changes that take place in the epithelial tissues in a large number of tongues taken from patients at various periods of life. As the result of this examination I should like to bring under your notice several important facts which, up to the present, have not been systematically studied. If the tongue of an old person be examined the appearance is quite different from what is seen in the tongue of an infant; the subepithelial tissue is distinctly less in amount, whilst here and there are groups of small round cells; the fibrils of the connective tissue are wider apart and appear to be considerably atrophied. The epithelial covering, on the other hand, has assumed a very different appearance. The masses of cells, instead of being simple, are more or less ramified, small finger-like processes passing down from the main column into the connective-tissue spaces; until in some cases we might almost imagine that we were examining an epithelioma, especially where there are small cell-nests formed in the thickened epithelium. When this condition of affairs is normally present—for such a condition appears to be present in the tongues of most old people—it is easy to understand how some comparatively slight but long-continued irritation at this point may give rise to an epithelioma; we have practically an invasion of the much atrophied and non-resistant connective tissue by the highly vegetative epithelium. Similarly in old people it has often been remarked that as involution of the breast proceeds the connective tissue becomes opener, the spaces larger, and the cells fewer; in fact, it becomes atrophied, and this atrophy becomes more marked as age advances. If during this period of atrophy there is no irritation, there comes a time at which the epithelium also undergoes atrophic changes, and there is a steady involution. Should there be any irritation, however, instability of the epithelial cells results; we have proliferative activity of these cells, an invasion of the non-resistant atrophied connective tissue, and the formation of a cancer.

It may be accepted for the present, then, that malignant tumours are to be looked upon as overgrowths of certain tissues started into activity by some unknown cause. This unknown cause has been a subject on which the pathologist has bestowed the most earnest attention. It has been recognised that it is necessary to search beyond the condition of the tissues themselves for a primary causal factor such as would account for the peculiar proliferation of different sets of cells under definite conditions and at certain periods of life. It has been found that malignant tumours of an epithelial type cannot be produced in healthy tissues, although certain adenomatous forms have been ascribed to the action of such irritants on compara-

tively healthy tissues. It has also been indicated that if the irritation that brings about this formation of simple tumours be continued for a considerable period, or if during the process of irritation a "cancerous age" is reached, a cancerous element—that is, rapid vegetative power of the epithelium leading to invasion of the lymphatics—is developed. What, then, can be the exciting cause of cancer formation? We have already spoken of the unbalanced condition of the tissues and of the vulnerability to invasion of connective tissues by epithelial cells under certain irritative conditions and at certain ages, first indicated by Thiersch. For the development of cancer it is necessary that there should be a continuous irritation, and one capable of multiplication. After the demonstration of the fact that bacteria were capable of setting up proliferative changes in the connective tissues, great efforts were very naturally made to determine whether similar organisms might not play an equally important part in setting up cancerous proliferation. Some observers thought they had succeeded, but the organisms were shown to be common saprophytic germs. We are, then, compelled to look elsewhere for an exciting agent, an agent which must act continuously in the sense that it has the power not only of persisting, but of increasing in quantity and in activity. It must also have, under certain conditions, the power of acting almost specifically on epithelial cells, and of setting up proliferation in them at the expense of their functional power. All these qualities must be inherent in the irritant that has the faculty of stimulating epithelium into cancerous activity; this we know from our observations on the nature of the disease.

It has long been known to zoologists, especially to those interested in the animal parasites, that we have a number of parasites most of which affect epithelial cells, which exhibit little motion, are more or less homogeneous in structure, but which are surrounded by a hard smooth cuticle. This class of organism has been specially described as occurring in the liver of the rabbit, where, under the name "coccidium," it is known to set up a peculiar irritated condition of the bile ducts, which ends in the formation of psorosperm nodules, which are really cysts containing papilliform projections covered with rapidly proliferating epithelium, in the cells of which are numerous protoplasmic bodies answering in all respects to the description above given. Similar organisms, setting up similar proliferative changes, have been described as present in the epithelial cells lining the intestine of the mouse, the dog, cat, rabbit, and even of man. On examining the literature and descriptions given of these parasites, and of the effects they produce, one cannot but be struck by the very marked similarity, not only as regards the naked-eye appearances, but also as to the histological changes generally (especially those that are found in the epithelium), between psorosperm nodules and cancerous growths. We have here, then, in the lower animals organisms which, as parasites of the epithelial tissues in which they set up and maintain continuous proliferation, and comply with all the conditions required, theoretically, in the irritant that should be the cause of cancer. This being the case, it was natural that in psorosperm infection, observers should look for the cause of epithelial cancers, and for long there has been a vigorous strife between those who believe that certain structures met with in the epithelial cells are merely colloid bodies and those who maintain that some of them at least are parasitic organisms which have a definite structure and play a definite part in the production of cancerous growths. An important paper was published by Russell, in which he pointed out that he was able to stain certain structures in cancerous tissues very brilliantly, and that these structures appeared to bear a definite causal relation to the growth of cancer.

With the assistance of Mr. Douglas Stanley, M.B., I have been able to examine a very large number of tumours kindly supplied to me by Mr. Hulke, and have so been able to confirm Russell's observations as regards the presence of his so-called fuchsin bodies. Russell looks upon these bodies as being probably somewhat closely related to the yeasts, and he describes in them a kind of reproduction by budding, which, he thinks, supports his contention. On careful examination of many specimens specially hardened with bichloride of mercury and alcohol, I was, however, led to believe that these bodies resembled the coccidia group more than any other known organism; in the larger ones especially, where there appears to be a distinct investing capsule, there is often a rather more deeply stained centre, sometimes granular, sometimes perfectly homogeneous, whilst the differentiation between the central portion and the periphery is frequently well marked, the central portion being irregularly mottled with small radiating projections, which may be sharp-pointed or club-shaped. Again, the protoplasm within the capsule sometimes assumes a stellate form. Wherever these larger organisms are found, small fuchsin-stained points can always be distinguished in or near the nucleus of the proliferating epithelial cells; they are quite distinct from the nucleus, and the only thing to which they can be compared is the adnuclear body. In some cases the nucleus is pushed to one side, forming a crescent around one end of the fuchsin body, whilst in other cases the nucleus has almost disappeared, and the fuchsin body appeared to be surrounded by a ring of protoplasm, the remains of the epithelial cell with a little granular matter, the remains of the nucleus, at one corner. Soudakowitch's observations, recently announced in the "Annales de l'Institut Pasteur," offer most important confirmatory evidence as to the nature of these intra-cellular organisms, important because he has been able to demonstrate the possibility of throwing these objects into much greater relief than has ever yet been done. On account of the thick chitinous capsule of the coccidium, its contained protoplasm appears to be little affected by the action of weak chromic acid or Muller's fluid, and the organism continues to live and then to undergo degenerative changes after the protoplasm of the epithelial cells has been partially fixed by the hardening reagents. By fixing the tissues rapidly with bichloride of mercury, osmic acid, Fleming's solution, or absolute alcohol, the structure of these organisms is retained, in some degree at any rate, and then, by staining with logwood or with logwood and saffranine, this structure can be brought out fairly distinctly. After examining specimens so prepared, so great an authority on zoology as Metchnikoff pronounces the organisms to be undoubtedly coccidia. Dr. Ruffer and Mr. J. H. Walker have placed at my disposal a number of sections stained with a combination of aniline dyes, some of which are under the microscope; others we have been able to photograph under a magnification of 800 diameters. A careful examination of these sections removes all doubt as to the nature of these bodies; they are certainly not the result of degenerative processes; they are not leucocytes or red blood-corpuscles taken into the epithelial cells, though small cells appear to find their way into the proliferating epithelial cells in some cases; equally certain is it that they are not vacuoles. They have, indeed, as Metchnikoff points out, all the characters of coccidia. In some of the capsules there appears to be a process of division going on, whilst here and there are capsules in which several (four to twelve) small rounded or crescent-shaped psorospermæ, in other respects like the coccidia except that they have no capsule, may be made out. In one or two instances these appear to be lying free between the epithelial cells, from which they have probably escaped on the breaking down of the mother capsule. They are of very various sizes, from the diameter of a red blood-corpuscles to three or four times that size. On examining a section of a rapidly growing secondary cancer in which these bodies are present, the proliferation of the epithelium is always most marked where the encapsuled bodies are most numerous. In the larger alveoli many of the cells contain these organisms, and in the long narrow spaces, where we have simply a single row of epithelium cells, every third or fourth cell may be seen to contain at least one, whilst in transverse sections of these spaces a single one of these bodies fills up the whole of the cavity. We are still very far from the proof that these organisms are the actual cause of cancer. Why should they make themselves felt only under certain conditions and at certain periods of life? We have already spoken of some of the conditions favourable to the production of cancer, and it may be, as Mr. Jonathan Hutchinson says in respect to the production of tubercle by the tubercle bacillus, that a special kind of soil, and one to which special kinds of manure have been added, is required for the nutrition of the psorospermæ. The conditions of parasitism are such that the healthy dry epithelial tissues are enabled to resist the attacks of even the most vigorous parasite; when once, however, their functional activity is impaired or their vitality somewhat lowered, the coccidia may find a nidus in which they may develop, secrete the products of their protoplasm, and so act on the epithelial cells, giving rise to proliferation and allowing

them to become fully developed, and thus by their irritation bringing them back to their embryonic form, during which their vegetative activity is increased in proportion to the impairment of their functional activity. It is this vegetative activity that enables them to invade the lymph spaces of the connective tissue. Beyond this, however, these same products of metabolism must exert an irritant effect on the connective tissue in the immediate neighbourhood of the proliferating epithelial cells, and so give rise to what is practically granulation tissue; the greater the departure of this from the normal fully developed connective tissue the more readily does it allow of the invasion of the proliferating epithelial cells. May not these secretions also play an important part in the cachexia so marked a feature not only in cancer, but in all cases of coccidial disease both in man and in animals? One extremely weak link in the chain of evidence is that hitherto all inoculation experiments with cancerous material have failed most signally to produce any cancerous reaction. At first sight this appears to be an almost insurmountable obstacle to the acceptance of coccidia as the primary causal agent in the production of cancer; but it must be remembered that the evidence offered by zoologists as to the nature of these organisms indicates that they are exceedingly fastidious, both as to the positions in which they will grow and the kind of nutriment they will take up.

In the inoculation experiments that have been made the cancerous mass has usually been introduced into the connective tissue, into the veins, or into the abdominal cavity; in which position, although it has been demonstrated that coccidia can retain their vitality for three days, the tissues in which they are lodged, and eventually the coccidia themselves, are absorbed by the new connective tissue that is formed around them, a small mass of such connective tissue being all that is left to indicate the locality of the inoculated tissue. As soon as the epithelial cells disappear, the coccidia have nothing on which they can subsist or in which they can grow, and they immediately undergo degenerative changes, and are removed just as were the epithelial cells. Under the most favourable conditions for their growth and development they appear to be able to continue their existence only when protected from the connective tissue by the proliferating epithelium in which they are lodged. It is little wonder, therefore, that inoculation experiments have not succeeded. A coccidial origin of cancer, if proved to be correct, would render it necessary that we should throw aside the doctrine that cancerous epithelium can be developed from anything but epithelial cells. We can, no doubt, find various kinds of epithelium, according to the seat of origin of the cancer, the rapidity with which the cells proliferate, and the extent of the invasion; but in every case we find epithelium which resembles in a greater or less degree normal epithelium. From what has already been said as to the relation of the coccidium to the epithelial cell, it is evident that, in order that a primary cancer may be developed or a secondary cancer grow, epithelium must be present in which the coccidium can maintain its existence and perform its parasitic functions. Before I conclude I wish to say a few words under my third head.

In all our researches as to the nature and etiology of cancer we have in view the alleviation of the suffering of those who are affected by this disease; and hitherto our main object has been to determine how far it was necessary to remove certain structures in order to minimise as far as possible the chance of any return of the disease. From a careful microscopical investigation of many hundreds of cancers that have been submitted to me for examination, I am firmly of the opinion that many surgeons make the mistake of not removing sufficiently freely either the tissues in which a cancerous growth has made its appearance or the lymphatic glands associated with it. Quite recently Mr. Harold Stiles, of Edinburgh, has carried on an extensive and careful investigation into the question of how far the immediate tissues around the naked-eye cancer of the breast are affected. His method is based upon the effect which nitric acid has upon the tissues, causing the connective tissue to become clearly differentiated from the epithelium. From a careful study of sections so prepared, both by Mr. Stiles and myself, as well as from microscopic examination, I am convinced that the only safe rule to be observed in removing cancer of the breast is to remove not only the main mass of the gland, but all outlying portions of glandular tissue, so that if on cutting away the margins of the tumour, treating with methylated spirit and nitric acid and then with water, any opaque columns or fragments are to be seen still, I should consider that the removal has not been free enough. Of course, the part of the tumour that should be specially examined in such a case is that near the sternum, where, on account of the shape of the incision usually adopted, as pointed out by the late Charles Moore and mentioned to me by Mr. Hulke, there is the greatest danger of fragments of the gland being left. I shall not to-day attempt to enter into any discussion as to the relative frequency of the spread of cancer by bloodvessels and by lymphatics, although latterly some doubt has been thrown on the accuracy of our present teaching in regard to this question. I will merely state that I am more and more convinced that cancer extends almost entirely by the lymphatic vessels, that this takes place not only locally by direct extension, but in some cases where the lymphatics are especially wide, and especially after they have been called upon to do temporary extra work, the cells may make their way for some distance without leaving any intermediate trace between themselves and the parent mass. It may appear that I am taking much for granted, and of which at present we have extremely insufficient proof; but I hold that until we have more definite knowledge on all these points, we must for the sake of our patients accept them as proved, and certainly take them into consideration when planning out our method of treatment.

OUR MISTAKES.[1]

BY WILLIAM MURRAY, M.D., F.R.C.P. LOND.

THE man who makes no mistakes seldom or never does anything worthy of note. Life is so closely interwoven with tentative efforts on the part of those who keep its machinery in motion, that it would be strange indeed if mistakes were not often made. As experience, often dearly bought, on the part of both doctor and patient, is our best guide amidst the pitfalls which surround us, I think it is a most profitable task to go over the ground of our past experiences and gather up the lessons taught us by our failures and mistakes. A great general was once found making a careful survey of the field of a battle which he had won. On being asked what he was doing, he said he was *studying his mistakes*—a lesson well worthy of our imitation. Our mistakes may be divided into (1) those which can and ought to be avoided by every intelligent, well-taught, and experienced practitioner; (2) those which can only be avoided by an unusual amount of experience and insight; (3) those which no amount of care, experience, or insight would enable us to avoid. I shall give examples of these as we proceed. In disease nature is for ever making fresh experiments before our eyes, and we are to watch how she varies the experiment, lest its many variations from the normal type of the disease mislead us into a false diagnosis. Each disease varies as much in expression as the human countenance. In my experience no two cases are exactly alike. What is described as a typical case exists only in the imagination of the writer of a text-book or a lecturer to his class. This typical case is like the archetypal vertebra, which exists only in the brain of the anatomist; all real vertebræ are, like all real diseases, variations from the typical. To push the analogy, just as the skilled anatomist can amplify the most rudimentary vertebra into one possessed of all its parts, so the skilled physician can grasp the true nature of a case and build up a diagnosis from the faintest indications; and, further, he can simplify and reduce to order the most irregular and complicated manifestations of a difficult case. It is by the exercise of this constructive faculty on the one hand, and by that analytical faculty on the other, that our difficulties are to be overcome and our mistakes avoided.

With regard to the first class of mistakes—namely, those which ought to be avoided,—let me remark that the best of us will sometimes be caught napping. "Nemo mortalium omnibus horis sapit." We somehow get on the wrong scent in a case, and becoming occupied by a train of minor symptoms, miss its main features; or we are the victims of

[1] An Address delivered before the Newcastle Clinical Society.

a preconceived opinion, and it shuts our eyes to facts which would be patent enough if we brought an open mind to the case. I shall give one or two illustrations of the kind of thing which occurs. There is no more common source of error in diagnosis than the subtle development of hydrothorax or empyema after an acute illness. When these diseases arise from an attack of pleurisy pure and simple there is little fear of their being overlooked—in fact, they are then often diagnosed when they can hardly be said to exist. But when they supervene on another acute illness, such as typhoid or scarlet fever, the practitioner is liable to miss their existence, and to attribute the rapid breathing, quick pulse, and fever to some other sequel, such as tubercular disease, bronchitis, or albuminuria; yet the faintest suspicion would lead to the easy detection of the true state of affairs. The immovable chest wall, the absence of respiratory sounds, the dulness on percussion and the absence of vocal fremitus, are indications too clear to be easily mistaken. The mistake arises from a want of suspicion or a want of alertness, or from a want of care in making a thorough and frequent examination of the patient.

"Strip him!" is a motto which ought to be engraven on all our minds. This brings me to another source of error; that is, the want of a thorough examination of the various canals and cavities—the mouth, the throat, the nares, the ear, the rectum, the generative and urinary tracts, &c. I need not say that I refer to an examination by all the specular aids we possess. No small number of failures and mistakes arise from inattention to this point. Let me give one or two illustrations. Whenever we are at a loss to account for high temperature, the throat should be examined. There may be a good deal of mischief there without any complaint on the part of the patient. I well remember being called to two consecutive cases—one of supposed pneumonia, the other of quasi-puerperal fever,—in each of which I found that diphtheria was the true cause of the illness. Within a very short time a gentleman called on me, with an apparently feverish cold. As he did not get well, he asked me to call on him; and I, thinking his symptoms were due to the above cause, handed him over to the care of an exceedingly acute local practitioner, who discovered at his first visit that our patient had a diphtheritic throat. Most medical men will agree that such mistakes are not uncommon, and we need to add to our first motto, "Strip him!" another equally golden rule—to examine the canals and cavities. Another illustration may be added. A short time ago I was asked to see a child suffering from obstinate hæmorrhage from the bowels, and I said at once, "I shall find a pediculated polypus in the rectum," which was found and detached at the moment. My experience at the Children's Hospital had taught me this lesson years ago.

A further illustration still occurs to me. A gentleman whose name is now a household word throughout the world called on me in great alarm on account of an attack of blood-spitting, which came on while he was dressing. I saw a good deal of blood on his handkerchief, and on examining his chest heard, or thought I heard, rough breathing and fine crepitation over the left apex. I told him this, and treated him accordingly. On going to his shop he, knowing something about dentistry, looked into his mouth, and discovered that the bleeding was from a spongy gum, which he had doubtless lacerated with his toothbrush. I need not say that he lost confidence in me, and I lost my patient. Time would fail me to make further remarks on these casual cases, where mistakes are often made for want of thought and care.

I will now relate a series of cases of cancer where a diagnosis was only to be made by an unusual amount of care, experience, and insight; and if I seem to be egotistical by taking praise or blame to myself, I trust my unintentional fault will be pardoned. I am going almost entirely on my own experience, and I am thus compelled to speak of myself oftener than I like. Cancer of the internal organs rarely fails to puzzle us at the outset, and a diagnosis is seldom made until the disease has made considerable progress. In the absence of distinct physical signs, and with only subjective symptoms, such as pain, to depend on, we are very liable to be landed in a grave difficulty of diagnosis. If we suggest there is, or may be, malignant disease, the responsibility is great; if we risk an opposite opinion the responsibility is equally great, as the sufferings of the patient are often urgent and demand an explanation. Mistakes can only be avoided here by the utmost caution and the most watchful investigation. There is, however, one feature about these cases which occurs to me when I look back on a long series of them. It is this, that most of them have given at a somewhat early period just the faintest hint of what is going on. I have often felt too late that a wise interpretation of this or that faint hint would have saved me and others from the ignominy of being forestalled in our diagnosis by someone else. It is easy to name a full-blown flower, but difficult enough when that flower is in the bud. I shall now give an experience founded on five cases of internal cancer, which will illustrate my meaning.

Some years ago a case occurred in the practice of the late Dr. Douglas of Gateshead, in which the chief, and for a long time the only symptom was pain in the tibia. The man was emaciated and suffered intensely. He was seen by two or three physicians and one or two leading surgeons. None of us could form a diagnosis. There was no swelling, heat, tenderness, or alteration in the shape or appearance of the limb. At length some softness and shining of the skin marked the seat of pain, and even then grave doubts were entertained as to the nature of the disease. Within a few days of his death I was called to see him again, and I found he had expectorated some currant-jelly-like matter; but even this failed to suggest a true diagnosis, and so the man died of "no one knew what." Meditating on this case, it all at once flashed into my mind that the red-currant-jelly expectoration was a hint of the true nature of the case, and that the man had doubtless died of cancer of the lung, following or accompanied by malignant disease of the leg. I felt that a serious error by default of diagnosis had occurred, and was much humiliated thereby.

Not long after this I was called to see a case in Weardale, and was told on arrival that the patient was suffering from congestion of the lungs. The expectoration, which was shown me before I examined the patient, at once convinced me that this was a case of cancer of the lung. There were, however, no physical signs; and on mentioning my conviction to the medical attendant he was very sceptical, and threw on me the enormous responsibility of giving an opinion based on the one isolated fact of currant jelly expectoration. I therefore re-examined the chest and discovered a cancerous nodule in the right mammary gland, which of course set the diagnosis at rest. An unfavourable opinion was given, which soon afterwards proved mournfully correct.

A short time after this I was called, with my friend, Dr. Adam Wilson, to see the married daughter of the above lady. We were informed that her arm had been amputated above the elbow by Sir Joseph Lister for disease in the forearm. The patient was then complaining of pain at the posterior base of the right lung, but the physical signs were faint and doubtful. We therefore reserved our opinion, but privately agreed that it was probably a case of cancer of the lung, and that Sir Joseph Lister had amputated high for malignant disease of the forearm. In due time came the currant-jelly expectoration, and she died of cancer of the lung. In these cases the faintest hints were given at the outset, and errors by default of diagnosis could only be avoided by paying heed to them. We ought to make ourselves well acquainted with this red- and black-currant-jelly like expectoration of cancer of the lung so as to be able to distinguish it from the bistre or sooty tint of pulmonary apoplexy and old hæmoptysis.

Pursuing this subject, two other instructive cases occur to me. About fifteen years ago the late Mr. Manford had a case which puzzled several of us. The chief symptom in this case, for at least six months, was an intolerable pain on the front of the right thigh three inches above the knee-joint. All sorts of opinions were expressed, and of course hysterical knee was the favourite. At last it occurred to me that, this region being supplied by terminal twigs of the obturator nerve, we ought to examine that nerve along its whole course, and this could only be done per rectum. On passing the finger the secret was at once discovered to be a carcinomatous mass springing from the side of the pelvis, and growing into that part of the pelvic cavity which is traversed by the obturator nerve.

(To be concluded.)

EAST LONDON HOSPITAL FOR CHILDREN, SHADWELL.—Baron De Hirsch has forwarded a donation of £700 to this institution.

REMARKS ON THE

STATE OF THE VESSELS OF THE PIA MATER IN BRIGHT'S DISEASE ("ARTERIO-CAPILLARY FIBROSIS").

BY A. G. AULD, M.D.

(From the Pathological Laboratory of the Western Infirmary, Glasgow.)

IN the course of the past eighteen months I have examined the vessels of the pia mater in all (or nearly all) brains removed for examination in the post-mortem room of the infirmary during that period. In each case the pia mater was hardened for a long time in Müller's fluid, and afterwards in alcohol. The method adopted for examining the coats of the vessels consisted in washing out the alcohol, soaking in gum and sugar solution for a few days, then freezing the membrane *en masse*, and cutting sections. It cannot be said that the resulting sections were the best that could be desired from an artistic point of view; but after careful staining and mounting, I have made out by means of high powers what appears to be the true nature of the "hyaline-fibroid" thickening of Gull and Sutton. As is well known, these authors, in their celebrated papers, contended that in chronic Bright's disease the vessels throughout the body generally, and especially those in the pia mater, had their outer coats thickened by a "hyaline-fibroid material," while the muscular coat showed atrophic changes, and the tunica intima was generally unaltered, though occasionally thickened. With respect to the muscular coat, such an atrophy has generally been denied, and Johnson especially laid stress on a true hypertrophy of this layer, quite apart from any question of an *apparent* hypertrophy from contraction occurring at death. On the other hand, all observers are agreed as to a thickening of the outer coat. First, as regards the larger vessels, my observations go to show that in Bright's disease (though not limited to this affection) a hypertrophy of all the coats is the condition most generally observed, and of the three, that most frequently excepted from hypertrophy is the inner, while that most constantly involved is the outer. The thickening of the inner coat consists in an endarteritis, such as forms the first stage of atheroma, causing the intima to be represented by a more or less thick and unequal layer of very cellular tissue—a tissue produced by a rank cellular proliferation. This was very characteristic of cases presenting the atrophic stage of large white kidney, and was not so pronounced in cases of ordinary granular kidney. As regards the muscular layer, in most of the cases there was undoubted increase of the muscle nuclei. There was then always hypertrophy of the left ventricle of the heart. In a few cases the muscular layer showed a degree of atrophy, unequally distributed, and some fatty degeneration of its cells; there was then usually some fatty change in the heart. Occasionally not much alteration from the normal was detected. With respect to the condition of the outer coat, as stated, all observers agree that this coat is thickened, and sometimes very greatly so, in the cases under consideration. It presents in the arteries and arterioles alike a homogeneous, somewhat translucent, aspect, which in the larger vessels is particularly marked in that portion which lies nearest the muscularis. Gull and Sutton held that there was a deposition or formation of a "hyaline-fibroid" substance, giving this coat the appearance described by Dickinson, "as if swollen with translucent structureless exudation."[1] Johnson and others considered this hyaline appearance to be a delusive result of reagents—e.g., glycerine, acidulated mounting fluids. In any case, the cause of the hyaline-fibroid formation has not so far been determined. Now I have invariably made out by means of oil-immersion objectives (Zeiss) the existence of branched corpuscles with large and frequently divided nuclei embedded in this hyaline-fibroid substance. Further, after maceration in picric acid and exerting pressure over the cover-glass this homogeneous-looking layer was seen at the cut extremity of the vessel to be split up into exceedingly fine fibrils. In short, it was clearly demonstrated that this formation is ordinary connective tissue derived from connective-tissue corpuscles after the manner of inflammatory tissue. And not only in the outer coats of the vessels, but likewise throughout the whole tissue of the pia mater, this corpuscular change was usually seen, leading to a more or less general thickening.

From these observations it is to be concluded: 1. The hyaline-fibroid thickening of the outer coat of the vessels is not of the nature of an exudation or deposition of a foreign substance, nor yet a transformation of existing structures. 2. The effect of reagents is, after all, but unimportant. 3. The thickening of the outer coat is unquestionably due to proliferation of connective-tissue corpuscles embedded therein, leading to new formation of tissue; in short, is a slowly progressing periarteritis. 4. This change is probably general throughout the entire tissue of the pia mater. 5. The muscular and inner layers of the vessels show hyperplastic changes at first; latterly atrophic and degenerative changes set in.

In the case of the smaller arterioles their muscular elements were certainly increased in volume, if not also in number, and their delicate investment of connective tissue was represented by a thick, homogeneous-looking cylinder. It is particularly to be noted, however, that their endothelial lining showed no deviation from the normal, in this respect presenting a marked contrast to the condition prevailing in the larger vessels. The diameter of the channels in these thickened arterioles suffered great diminution; not infrequently it measured just the diameter of the wall. Such a diminution suggests an adequate explanation of the cardiac hypertrophy in chronic Bright's disease. I hope, however, to return to the consideration of this point.

In conducting these observations, I may say that it was impossible not to be struck with the marvellous advance made in this department of pathology by the distinguished authors of "arterio-capillary fibrosis."

Glasgow.

[1] On Albuminuria, p. 309.

PLACENTITIS AND MISCARRIAGE.

BY CHARLES GAYFORD, M.D. DUR., M.R.C.S., &c.

THIS case is one of more than ordinary interest, and will doubtless be of service to other members of the profession.

On Feb. 13th I was summoned hastily to see Mrs. C——, whom I found seated on a commode in which was lying a fœtus of about five months. She said the expulsion had come on quite suddenly, though she had been ailing for some weeks. The following history was elicited. On Boxing-day she had shivering and great headache, but she did not go to bed. A day or two after, while still feverish and in some pain, she came on unwell, and lost freely for two days, more than at ordinary monthly periods. The loss then lessened, and she, still keeping about, thought she must have made a mistake in her opinion as to pregnancy. A second loss occurred a few days subsequently, followed by a very copious discharge of "whites." Still she kept about, though often feeling extremely ill and unfit for her duties, which were those of a matron of a boys' home. In this way some five weeks passed before the mishap occurred for which I was called in, and during this time she had only once seen a doctor. She had all the time been in failing health. On my arrival I severed the cord, which was bloodless; and the fœtus, which was discoloured, had probably been dead several days. There was no trace of any membranes, nor was there any evidence of amniotic fluid. After getting the patient on to the bed I examined her for the purpose of removing the placenta. I could trace the cord up to the point of attachment on the uterine wall, which presented at that point a puckered, rough, and somewhat hard surface, but no further evidence of the presence of a placenta. After waiting a little time for uterine contractions to come on, as I had given ergot, I made a further attempt to get the placenta away, but in vain. The cord was firmly attached, and any force seemed likely, owing to the condition of inertia in which the uterus was, to bring about prolapsus, if not inversio uteri. I left my patient for a time, with orders to call me at once if any need arose. After an interval of an hour I saw her again, when the same state of things was found. There had been no pains and there was no hæmorrhage, nor had the cord become detached. After giving another drachm

dose of ergot I left, giving instructions to be called at once if necessary. This time I was two hours away before calling, and when I arrived found a considerable amount of hæmorrhage. I emptied the uterus, removing several clots, which were small and all carefully examined, and in doing so, without using any but the gentlest traction, the cord got released from its attachment and came away. It showed evidence of attachment to what had been placenta merely. It was spread out to about the size of a two-shilling piece. Its attachment showed nothing more than a spreading out of the outer covering of the cord; there was no evidence of membranes or any portion of placenta attached to it. There was the same condition of uterine wall. The hæmorrhage ceased, and I left my patient, to be seen again later in the day. I ordered the use of an injection of 1 in 5000 bichloride of mercury solution and a mixture of bromide of potassium and liquid extract of ergot. The next day her temperature was 100·2° F., but it went back to normal in the evening and remained so during the whole of the convalescence, which was uninterrupted. I allowed her to get up on the fourteenth day, and she has since been about as usual. There was no placenta discharged, no hæmorrhage after the one I have spoken of, nor any ill-smelling discharges. At the month after the occurrence she had a slight flow, but nothing to speak of, for two days. At the next period she lost freely for three days. She has resumed and still continues her somewhat arduous duties, and is in good health.

My diagnosis in this case was miscarriage following placentitis. My belief is that she had influenza the week after Christmas, and that this set up the trouble. This is her fifth pregnancy. There is no evidence of specific mischief, though she has been singularly unfortunate. Two of four children were born at full time dead. Shoulder presentations. The others were one shoulder and one breech presentation, both of whom are living and healthy children. Both parents are young people and healthy. I should be glad to hear of any similar experience, for my own feeling is that the evil effects of the so-called influenza show mischievous ramifications so widespread that hardly any portion of the body can claim immunity from its ravages.

Fleet-street, E.C.

ACUTE INTESTINAL OBSTRUCTION; OPERATION BY SHORT CIRCUIT.[1]

BY EDWARD ATKINSON,
SENIOR SURGEON TO THE LEEDS GENERAL INFIRMARY.

G. F——, aged twenty-two, was admitted into the General Infirmary, under Dr. Churton, on Wednesday, Nov. 25th, suffering severe pain in the right side of the abdomen. In Dr. Churton's absence Dr. Jacob asked me to see the patient with him, when the following history was elicited:—Nine days previously he was seized with severe pain in the epigastrium and right side of the abdomen. He left his work and remained at home two days, taking castor oil and other medicines, which were vomited, together with all the food that he took. The third day, feeling better, he went to work again for two days, when the symptoms returned, and on Friday, the 20th, he kept his bed. The next day acute pain came on and vomiting, nothing having passed the bowels for some days. On the Sunday he passed a small motion and felt somewhat better for it, but on Monday the pain and vomiting returned, and lasted without intermission till his admission on Wednesday afternoon (the 25th), and no more motion had passed. On examination the abdomen was tense and tympanitic, especially on the right side. The patient complained of pain of a sickening character right across the hypogastrium, and he had manifest tenderness on pressure over a limited area in the right iliac region. There was resonance over the whole abdomen, and the movements of the small intestine could be distinctly seen. The patient said he had passed a little flatus in the morning, but two enemata given him after being admitted into hospital had not been followed by any further relief. The symptoms seemed partly to point to the cæcum or vermiform appendix, but the vermicular movement of the small intestine suggested that the obstruction was higher up. However, the fact that he had had no opiate, and his statement of having passed a little flatus, induced me to order a hypodermic injection of morphia, as it was late at night, and to wait till the morning. The next day he was no better, and so I resolved to explore. At 10 A.M., under chloroform, I made an incision five inches long over the outer border of the right rectus muscle. On opening the peritoneum a quantity of clear fluid escaped. Nothing suggestive of typhlitis or perityphlitis was found, but distended coils of small intestine presented at the wound. These were united to one another and to the iliac fossa by broad bands of adhesion, not recent, and prevented my being able to draw them forward or trace their course. These bands were evidently not the cause of obstruction. Being unable to see or feel any large intestine, I carefully tied and divided one or two of the broad bands, which enabled me to turn aside a coil of small intestine, and then found the cæcum behind it empty. It being now evident that the matting of the bowels rendered any further search for the cause of the obstruction impossible, the only course which seemed available was to bring the small intestine out of the wound and make an artificial anus; but Mr. Littlewood, who was present, suggested to me that the expedient of short circuiting, which he had performed in the case which he read to the Society a fortnight ago, would be equally applicable here. Accordingly I opened the collapsed colon, as much above the cæcum as I could reach, and inserted a Senn's bone plate; and after isolating the nearest coil of ileum, and securing it by tying a piece of indiarubber tubing round it, I opened it and inserted the corresponding plate. The large and small gut, being now brought into apposition, were further secured by marginal sutures around the plates, and the peritoneal wound was closed with deep silk sutures and silkworm gut for the external wound. Altogether the operation lasted an hour and a quarter. Within twelve hours after the patient had two large liquid motions, and next morning he expressed himself as feeling quite comfortable. His recovery has been uninterrupted, except for an abscess in the abdominal wall about a week afterwards, which soon cleared up. He was kept without food for three days, then small quantities of milk were allowed, and in a week afterwards he took rice pudding and mincemeat, and is now on ordinary diet.

It will readily be seen how immense an advance this procedure offers in the treatment of those cases of acute obstruction where the cause is, after careful search, either undiscovered or out of reach; and which otherwise would have to be relegated to the category of incurable cases, or dealt with by the formation of an artificial anus. With this new departure one may hope that few cases of obstruction will arise in which relief is unattainable, if treated in time.

Leeds.

[1] A paper read on Dec. 18th, 1891, before the Leeds and West Riding Medico-Chirurgical Society.

A CASE OF SECONDARY CANCER OF THE RIB, VERTEBRÆ, AND OVARY,

OCCURRING AFTER REMOVAL OF THE PRIMARY DISEASE IN THE MAMMA, AND COMPLICATED BY MYOMA OF THE UTERUS.

(From the Pathological Laboratory of the Glasgow Royal Infirmary.)

BY JOHN LINDSAY STEVEN, M.D.,
PATHOLOGIST, GLASGOW ROYAL INFIRMARY;
AND
JOHN BROWN, M.D.,
DISPENSARY SURGEON, GLASGOW SAMARITAN HOSPITAL FOR WOMEN.

THE following case is of interest as affording an illustration of the recurrence of mammary cancer in the bones. It is unfortunate that no accurate and exhaustive clinical record of the earlier period of the case is now possible, as the operation was performed at the patient's home, and I have been able to obtain only very meagre information as to the opinion held at the time regarding the nature of the primary tumour.

Mrs. C——, aged forty-six, housewife. The patient has had two children, both delivered by instruments; the last,

born in 1872, died soon after birth. Menstruation has always been normal in quantity, regular, and without pain up to September, 1890, when it ceased. In May, 1889, the right mamma was removed by Mr. H. E. Clarke for malignant disease. She was admitted into the Royal Infirmary, Glasgow, on Feb. 16th, 1891, with the following symptoms: Extreme constipation, no passage of fæces by bowel being obtainable without an enema; no appetite; the constipation and loss of appetite dating from August, 1890. She complained of severe pain in the left lumbar region, which had commenced in September, and also pain on the outer side of the left thigh, which she compared to cramp. In December the left leg became paralysed. Before her admission to hospital a tumour in Douglas's pouch was diagnosed as attached to the body of the uterus posteriorly. Operation was refused, and she was dismissed from hospital on Feb. 25th. She was readmitted on Jan. 11th, 1892, with all the above symptoms. During the past three months the urine required to be drawn off by catheter. An exploratory incision was made on Jan. 31st, and as the uterine tumour did not account for all the symptoms, nothing further was done; but the incision closed, and the patient died the following day. The family history was unimportant.

Necropsy.—The body was that of a woman apparently about fifty years of age, much emaciated; pupils equal and medium; rigor mortis passing off; abdomen deeply discoloured, and a sutured incision extended from a little above the pubes almost to the umbilicus. Nothing remarkable was noted in the cicatrix of the mammary operation. On opening the thorax, the pericardium was found to contain a couple of ounces of deeply blood-stained fluid. The lungs were non-adherent and fairly voluminous. With the exception of a slight catarrh of the bronchi and a slight emphysema of the anterior borders, both lungs appeared healthy. The right lung weighed nineteen ounces, the left sixteen ounces. The aortic curtains were competent; the lining of the heart and great vessels were deeply stained with blood-colouring matter. The heart muscle was fairly firm, but the heart was small, weighing eight ounces and a half. The abdomen contained a large quantity of opaque brick-red fluid. The coils of intestine appeared healthy. The spleen was healthy, weighing four ounces and a half. Both kidneys were somewhat congested, but otherwise healthy (the capsules were easily removed); the left weighed five ounces and a half; the right four ounces and a half. The liver showed a slight amount of fatty infiltration, but appeared otherwise healthy; it weighed forty-five ounces. The mucous membrane of the stomach, except a slight amount of congestion near the cardiac extremity, was healthy. The left ovarian vein was very large and convoluted. The vena cava inferior was enormously distended. On removing the great vessels from the front of the spine a distinct prominence of the second lumbar vertebra was noticed. On sawing out a wedge-shaped piece from the bodies of the vertebræ, the first and second lumbar vertebræ were found to be extensively diseased. A tumour about the size of a small hen's egg was found protruding into the thorax from the third right rib about two inches external to the spine. The rib in the neighbourhood of this tumour was very friable and the tissues around much congested. On removing the pelvic organs a tumour was discovered in the posterior surface of the uterus; it had a broad base, being attached to nearly the whole of the posterior surface, the only portion free being the space of about half an inch between the fundus and the tumour. The tumour was about the size of a large walnut. A hard nodule was found on the outer end of the left ovary, about the size of a horse bean. The brain and spinal cord were not examined.

Microscopic examination.—The histological relationships of this case are of a most complicated and rather confusing description, especially in view of the circumstance that the primary mammary tumour is said to have been a sarcoma—a diagnosis which the present research seems on the whole to disprove. The nodule in the left ovary presents the characters under the microscope of an acute scirrhus; in some places the alveolar stroma with the contained cancer elements are very typical; at other parts, and probably most commonly, the corpuscular elements are not so clearly in regular alveoli, but are arranged in irregular branching columns separated from one another by a fibrous tissue with many spindle-shaped nuclei. On examining the tumour of the rib it is found to consist of a highly corpuscular mass, the corpuscles being similar in character to those observed in the ovary; but the new growth in the rib differs from the ovarian chiefly in the circumstance that the stroma is much less abundant. At some places the similarity of the costal tumour to the ovarian in respect of the arrangement of the cancer elements in branching columns is sufficiently striking. In addition to the cancer corpuscles, here and there enormous collections of red blood-corpuscles are observed, which, on careful consideration, are regarded as extravasated. The naked-eye characters, as well as the histological, are indicative of very active proliferation. After decalcification the nodules of the vertebræ are examined, and are found to present a typically cancerous structure, well-formed alveoli, with cancer elements, being abundantly present. The uterine tumour is obviously a myoma, and has no relationship to the cancerous disease. It is clear that the nervous phenomena of this case were due to the involvement of the spinal column in the malignant disease, and to pressure upon the nerve trunks of the lumbar plexus &c. It is interesting also to find a secondary cancerous nodule in the ovary and a simple myoma in the uterus.

Glasgow.

NOTE ON

CERTAIN MODES OF TREATMENT WHICH INTERFERE WITH THE DIAGNOSIS OF SYPHILIS.

BY ARTHUR COOPER,

SURGEON TO THE WESTMINSTER GENERAL DISPENSARY.

THE earlier phenomena of acquired syphilis, when not interfered with by inappropriate treatment, are for the most part regular in their development and easy of diagnosis; and when difficulty and doubt do arise, if we put aside conditions due to some peculiarity in the patient himself, the most frequent cause, as far as I have been able to judge, is one or more of these three things:—1. The application of irritants (chiefly nitrate of silver) to a doubtful sore. 2. The application of irritants (chiefly iodine paint) to the groins. 3. The untimely administration of mercury. As all these modes of treatment are not uncommonly employed, and as they are all capable of giving much unnecessary trouble to the doctor as well as to the patient, I would venture briefly to state some of the reasons why they should be avoided. The application of nitrate of silver to a sore of uncertain nature, apart from the unnecessary pain and irritation produced by it, is more especially to be avoided because it is so liable to cause inflammatory hardness which may be either itself mistaken for syphilitic hardness, or may mask true syphilitic hardness. Irritation of the skin over inflamed glands is to be avoided for two reasons: First, because suppuration may be induced; and secondly, because so much infiltration and hardening of the skin and cellular tissue may be set up as to hide the enlarged glands of syphilis, if that disease has been contracted. Mercury should not be given while the diagnosis of a venereal sore remains in doubt, because the drug may either so modify the early signs of syphilis as to render them difficult to recognise, or perhaps may even prevent some of them altogether.

In illustration of these points, let us suppose such a case as this, which fairly represents a state of affairs not infrequently met with in practice: A man acquires a venereal sore. Perhaps he is married, or for some other reason is most anxious that—as he expresses it—"something should be done" at once. Unfortunately, this something often means the vigorous application of a stick of nitrate of silver. This sets up irritation and inflammation, and, if the situation of the sore be favourable, often phimosis as well. Then some enlargement and tenderness of the inguinal glands probably follows. Now something else has to be done, and this further something usually consists in a liberal use of iodine paint to the groins. The irritated glands may resent this by suppurating, or, on the other hand, infiltration and hardening of the superficial tissues may ensue to such an extent that it becomes impossible to say what may be the condition of the glands beneath. The patient by this time has probably become convinced that he is suffering from the worst possible form of disease, and

he urgently demands that mercury should be begun "as a precaution," or "to be on the safe side" as he puts it. The treatment up to this point having been merely local, its mischievous effects are usually only temporary, though it may entail careful watching of the patient until the extreme limit of the incubation period of syphilis has been passed. But if the demand for mercury be satisfied, the true nature of the case may be permanently obscured. Let us assume for the moment that the original lesion was a simple one, and that there is no syphilis. By-and-bye, the irritation having subsided, the sore heals, the glands subside, and the whole thing is at an end. But if mercury has been given it is very difficult to be sure of this, bearing in mind the remarkable rapidity with which syphilis in some cases is influenced by the drug. Supposing, on the other hand, that syphilis has really been contracted, that the induration of the initial lesion has been hidden by the inflammatory hardness produced by the nitrate of silver, that the characteristic adenopathy has been hidden beneath the effects of the iodine paint, that both these important signs have been further affected by the mercury, and that the same potent remedy has also prevented, delayed, or so modified the early rash that it, too, becomes unavailable as a trustworthy aid to diagnosis. The natural consequence of all this is a state of muddle which is complete for the time, and, worse still, one which may never be cleared up. By this time the patient is probably getting a little tired both of the treatment and of the state of uncertainty as well. And as, thanks to the mercury, which has been taken in quantity sufficient to check, but not to cure, the disease, nothing definite appears at the time, he imagines himself cured, leaves off treatment, dismisses the whole affair from his mind, and gets married. Then probably the next thing is an outbreak of syphilis in the wife or child, or both, and perhaps later signs in the patient himself. But even if none of these things actually happen, a time usually comes sooner or later when he thinks of marrying, and seeks an opinion as to whether he may safely do so. The history he is able to give is, of course, worse than useless, for it is confusing; and if there happen to be nothing discoverable about the patient's body to assist the diagnosis, it may remain uncertain throughout his life whether he has had syphilis or not. The consequence is, he is afraid to marry; or, if he does marry, he is perpetually haunted with the fear of infecting his wife, or of having "tertiaries" himself, or of becoming the father of a spotty, snuffling infant.

I have by no means exhausted the list of disasters for which the modes of treatment in question may be responsible; but probably enough has been said to show cause why they should be abandoned. If this were done, there can be little doubt that the number of obscure cases of syphilis would be considerably diminished.

Old Burlington-street, W.

CITY OF LONDON LUNATIC ASYLUM AT STONE.—The report for the year 1891 states that the health of the patients had been good. The death-rate, as for some years past, was abnormally low—viz., 4·34 per cent. of the number under treatment, against 8·19 in other asylums. With regard to receiving private patients, it was deemed desirable that facilities should be afforded to persons resident in or near London, to place in the asylums any affected members of their families, and a resolution had been adopted to admit private patients for a guinea a week. The expenditure for the year amounted to £17,400.

A COTTAGE HOSPITAL FOR FALMOUTH.—The report of the subcommittee with reference to the establishment of a public cottage hospital in this town was last week submitted to the committee and subscribers of the Falmouth Dispensary. The report stated that it was desirable such a hospital should be provided for Falmouth and the neighbourhood in connexion with the dispensary, to accommodate six beds to commence with. The resident medical practitioners were generally favourable to the proposal, and would render gratuitous medical services to the poor. The estimated cost of maintaining the hospital was £200 per annum. Upwards of £500 was in the hands of the Dispensary Committee, and consequently there would be no difficulty in securing the building. It was resolved to call a public meeting, with the view of raising the necessary funds for carrying on the proposed hospital.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

METROPOLITAN HOSPITAL.

CASE OF DIABETES MELLITUS; SLOUGHING ABSCESS OF HAND; CARBUNCLES; PYÆMIA; DEATH; NECROPSY.

(Under the care of Dr. A. HAIG and Mr. WALSHAM.)

THE effect of ordinary inflammation on tissues whose vitality has been lowered by diabetes is well emphasised by this case. Gangrenous and phagedænic ulcerations take the place of slight inflammations or small, quickly healing abscesses, in healthy tissues. The destructive processes pass through the stages of inflammation, abscess, molecular gangrene, and sloughing, and it is interesting to observe that, as in this case, there is a point at which, owing to the extremely low vitality of the tissues, even necrotic changes cease. The condition of the right lung was peculiar, and, though there were no infarcts or abscesses in the other lung, or in any other organ, it was suggestive of pyæmia; and, considered in conjunction with the temperature charted during the last week of life, justified that diagnosis. The empyema might be part of the same pyæmic process. Though the case was regarded as hopeless from the first, it is probable that, but for the pyæmia, the diabetes might have been held in check and life considerably prolonged. It is worth notice that a considerable diminution of the proportion of sugar as to urea took place while the patient was taking salicylate of soda. A similar result under the same treatment was obtained by Dr. Haig in some interesting cases reported by him in the St. Bartholomew's Hospital Reports, vol. xxv., though in the case under consideration it is doubtful whether the diminution was not due to the high temperature. Certainly drugs had not a fair chance under such desperate circumstances. For the account of this case we are indebted to Mr. R. Fraser Standage, house physician.

N. T——, aged eighteen, a servant girl, came to the out-patient room of this hospital on Jan. 17th, 1892, complaining of a painful swelling on the dorsum of the right hand. She described the swelling as of fourteen days' duration, but knew no cause for it. She also complained of lumps at the back of the neck, which she had noticed for a week. The swelling of the hand—an abscess—was incised and boracic fomentations applied. She reported herself again at the hospital, and as the resulting sore did not do well she was admitted.

On admission, in the cleft between the third and fourth fingers a sloughy, ulcerated wound, leading to an abscess cavity over the dorsum of the hand, was found. The cavity extended about 1½ inches over the dorsum of the hand but not into the palm; it discharged thin, foul pus and some sloughy tissue. The edges of the opening were ragged and undermined. No bare bone was felt. On the nape of the neck was a fluctuating swelling about the size of a pigeon's egg, covered with thin, red skin, with very slight induration around it. Behind the right ear was a similar swelling, which had burst and was discharging foul sloughs and thin pus similar to the discharge from the sore on the hand. The girl was emaciated, the skin dry and harsh, and it was deemed advisable, before any further surgical treatment was adopted, to have her medically examined. This was done, with the result of eliciting the following further facts. Twelve months before admission she noticed that she passed an abnormal quantity of urine. This has continued to the present time. She next noticed that her skin became dry and

itching, and she began to suffer abnormally from thirst. Lately, she has lost flesh rapidly and has been much troubled by muscular exhaustion, being often quite unable to do her work. She has suffered from pruritus vulvæ, and is obstinately costive. She gives no history of hæmatemesis.

On examining the chest, resonance was found impaired in front at the right apex. Breath sounds were louder at the right apex than at the left. There were also bronchophony and whispering pectoriloquy, but no abnormal signs behind. Heart sounds were well heard through the extremely thin chest walls, but no murmur. Abdomen: No definite swelling was made out, but the intestines were distended with flatus. The edge of the liver was not felt below the costal cartilages. Legs: There was slight œdema over the tibiæ. Urine: The amount passed in twenty-four hours was 108 oz.; sp. gr. 1033; acid; thick cloud of albumen. An examination of the urine made after removing the albumen by boiling and filtering gave: urea 95 per cent., total 472 gr; sugar 5 per cent., total 2494 gr.; proportion of urea to sugar 1 to 5·2; amount of sugar per oz. urine 23·083 gr. The hand was treated with a continuous hot boracic bath, and with fomentations for six days, but the ulceration became more phagedænic. Further incision was made dorsally, and iodoform dressings applied. The patient was put on a suitable diet and took a pill containing half a grain of powdered opium three times, and a draught containing fifteen grains of salicylate of soda four times daily.

Jan. 30th.—The swelling on the nape of the neck burst, discharging thin, foul pus, like the other sores, through several openings. These discharging sores, which now resembled carbuncles, were treated with boracic fomentations frequently changed. Another swelling formed on the neck above the first one. Chest: The dulness has extended downwards from the right apex to the third rib in front, and over all this dull area bronchial breathing, moist râles, and bronchophony are heard. A further estimation of the urine showed a slight increase in the percentage of urea, though there was still much albumen. Amount passed in twenty-four hours 160 oz.; sp. gr. 1035; acid; urea 1 per cent., total 739 gr; sugar 5 per cent, total 3696 gr; proportion of urea to sugar 1 to 5. The general condition was worse, there being now fever of a hectic type, the morning and evening readings showing a difference of from 2° to 4°. The emaciation was extreme and the thirst constant and distressing.

Feb. 3rd.—Ulceration of hand ceased, and the carbuncles on the neck have improved and are cleaner, most of the sloughs having separated. Urine: Amount in twenty-four hours, 106 oz; sp. gr. 1032; acid; a thick cloud of albumen; epithelial casts; urea 1 per cent, total 489 gr.; sugar 4·2 per cent., total 2048 gr. This showed a relative decrease in the amount of sugar passed. Temperature at night 103°.

4th.—Had a sudden attack of pain over the right side of the chest; breathing became very laboured, and the movements of the right side on respiration were diminished. There is absolute dulness on the right side in front below the third rib, resonance being impaired above it; also absolute dulness in the right axilla below the fifth rib. Breath sounds are inaudible over the dull area. Some pleuritic friction sounds over the upper part of the dull area can be heard; breathing distant over the right apex. Patient is very collapsed, pale, and comatose. Pulse 108; scarcely perceptible. She gradually sank, and died comatose on Feb. 5th.

Necropsy by Dr. HAIG (Feb. 6th).—External appearances: Extreme emaciation. Sores as detailed above. Brain: Meningeal vessels congested. Nothing abnormal in the brain substance; no excess of fluid in the ventricles. Chest—right lung: Costal and visceral pleura covered with recent lymph. There was about a pint of pus in the pleural cavity; no changes at the extreme apex, but the rest of the upper lobe was completely disorganised, with infarcts at the anterior border. A cavity the size of a walnut, about an inch and a half below the apex, contained thin, foul pus. No connexion existed between this cavity and the pleura. No tubercle. The left lung and heart were normal. Abdomen: The kidneys were congested, dark in colour, cortex indistinct, capsule not adherent; no pyelitis. The bladder was not hypertrophied. Liver: Dark in colour, enlarged, and firm in texture.

ROYAL PORTSMOUTH HOSPITAL.

CASE OF HERNIA STRANGULATED IN THE UPPER PART OF THE INGUINAL CANAL; ABDOMINAL SECTION.

(Under the care of Dr. WARD COUSINS.)

THIS was one of those comparatively rare examples of intestinal obstruction due to hernia in which no evidence of protrusion could be found at any of the ordinary sites of hernia. Dr. Ward Cousins has expressed his opinion of the occasional value of this method of operating by abdominal section for diagnostic purposes in some cases, and as a means whereby additional aid may be permitted in some complicated cases. Our readers will remember the discussion on median abdominal section for hernia which took place at the meeting of the British Medical Association of last year in the section of Surgery, over which Dr. Ward Cousins presided. For the report of this case we are indebted to Mr. T. H. Bishop, M.B., house surgeon.

P. G——, aged fifty-one, a blacksmith, was admitted into the Royal Portsmouth Hospital on the morning of Feb. 15th, 1892. He was suffering from internal obstruction, with collapse and urgent symptoms of peritonitis. The history was as follows:—He had been ruptured for twenty years, and was in the habit of wearing a truss. On the evening of Feb. 11th, after a fit of coughing he found his hernia had come down to a greater extent than ever before. He attempted to reduce it, but had considerable difficulty. After trying for half an hour he was successful, but he stated that he had to use some force, suffered pain, and that when the hernia did go back reduction seemed to be sudden. From this time intestinal obstruction was complete. He was seen by a doctor late on the night of Feb. 14th, who, finding signs of peritonitis, with stercoraceous vomiting, ordered his immediate removal to the hospital. On examination the rectum was found empty, and the inguinal rings and other usual sites of herniæ appeared free. Injections of warm oil with turpentine were employed, but failed to give relief to the obstruction. Dr. Ward Cousins then decided on abdominal section, as, owing to the urgency of the symptoms, exploration held out the only hope of relief. Accordingly the patient was put under chloroform, and a small incision made in the median line. On introduction of the finger into the abdominal cavity a knuckle of kinked and adherent bowel was found in and around the upper part of the right inguinal canal. This was released and examined. The abdominal cavity was then washed out with warm water and the wound closed. The patient survived the operation nearly three days, dying on Feb. 18th at midday. No fæces were passed after the operation, but on several occasions flatus was. Signs of peritonitis were well marked. Post mortem nothing was found beyond general peritonitis. The portion of bowel released at the operation was recognised by its dark colour.

Remarks by Dr. WARD COUSINS.—Unfortunately, surgical aid in this case occurred too late. Strangulation had existed several days, and at the time of the operation peritonitis was well marked, attended by intestinal paresis. The hernia had been incompletely returned by the patient himself. Over and over again he had successfully manipulated it when it had slipped down behind his faulty truss. It is very probable that chronic inflammatory changes had recently taken place around the neck of the sac, and a portion of the intestinal surface had become adherent around the internal ring. At the time of the operation the inguinal canal appeared to be empty, and I regarded the accident as a reduction in mass or a strangulation returned with constricting bands at the neck of the sac. The case was clearly one for treatment by median abdominal section after the method advocated by Mr. Lawson Tait, for relief would have been impossible by any other procedure. A small portion of collapsed intestine was found partly kinked within the canal and partly adherent around the orifice. The operation was both easy and simple, and by gentle exploration with two fingers an accurate diagnosis was made and the cause of the obstruction easily removed.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Polypus of Small Intestine associated with Intussusception.—Fibroma of Cerebral Dura Mater depressing Rolandic Region without Symptoms.—Hæmatoma Auris.—Mitral and Tricuspid Stenosis.—Aneurysm of Internal Carotid Artery.—General Arteritis.—Primary Malignant Growth of Corpora Cavernosa.—Par-epididymal Cyst.—Malformation of Heart.—Pregnancy in Bicornate Uterus.

AN ordinary meeting of this Society was held on May 3rd, the President, Sir George Humphry, in the chair.

Mr. LOCKWOOD showed a Polypus of the Small Intestine which was associated with Intussusception. The polypus was globular, and had a diameter of about three quarters of an inch. It was fastened to the wall of the ileum by a short neck. Its point of attachment was about two and a half feet from the cæcum. It was of a firm consistence, and covered with mucous membrane, with its interior composed of fibrous and muscular tissue, and with a calcareous nodule in the centre. Below the polypus was an intussusception about five inches long. The mesentery having been dragged into the bowel with the intussuscepted gut, the tumour was held against the posterior abdominal wall. As these conditions caused intestinal obstruction, laparotomy was done; but all attempts at reduction were unavailing, and therefore the intussusception was excised. Owing to collapse, the ends of the ileum were not united, but brought out of the wound by Mr. Thomas Smith. The polypus was discovered during this operation, and removed. It seemed clear that the polypus was of long standing. The patient was a woman aged thirty, and the calcareous nodule suggested that she had had it many years—perhaps all her life. Its occurrence at or near the position of the vitelline duct also suggested that it had a congenital origin. The relation of the polypus to the intussusception was also a point for discussion. Usually the polypus was pendant from the lower end of the intussusceptum, but here it lay above. Probably the sequence of events had been that the polypus had caused an obstruction, and the intussusception had been formed during violent peristalsis and by the lower gut invaginating over the upper.—The PRESIDENT remarked that he presumed the calcification indicated degeneration of some previously existing active tissue.—Dr. CHARLEWOOD TURNER said there was a specimen similar to that shown in the London Hospital museum, in which the polypus was at the top of the intussusception, and probably stopped the latter from increasing.—Mr. SHATTOCK observed that calcification of fibromata was rare, while that of myomata was common, and he suggested that the tumour in the present case was of muscular nature.—Dr. HALE WHITE referred to a specimen he had shown some time ago of polypus attached to the upper part of the jejunum. There was no calcification, but it was associated with intussusception.—Mr. STEPHEN PAGET asked whether growths commonly occurred at this point or new formations other than Meckel's diverticulum.—Mr. LOCKWOOD, in reply, thought it was the tightness of the mesentery which stopped the progress of the intussusception. As to the histology of the polypus, it had been macerated in the gut for some time, which obscured the details of its structure, but it was certainly not a pure myoma. No other pathological condition was present. Constrictions were sometimes met with in this position, though he admitted that the explanation of these narrowings would not equally account for polypus.

Mr. EDGAR WILLETT showed a specimen of a Fibroma, measuring nearly two inches in diameter, which arose from the dura mater, and had caused a corresponding depression in the cortex over the upper part of the fissure of Rolando. The interest lay in the fact that no symptoms whatever existed during life, the patient being a healthy woman, who died from acute double pneumonia. Microscopical sections of the tumour were also shown.—The PRESIDENT remarked on the extreme pressure the brain had undergone without producing symptoms.

Dr. E. T. WYNNE brought forward several specimens of Hæmatoma Auris. Having referred to the described pathological accounts of this lesion by Tishkoff and others, he exhibited a series of horizontal sections through the ear, which demonstrated not only the amount of the deformity, but the situation of the blood-clot. His specimens showed that degenerative changes took place in patches in the cartilages; then vascular processes developed from the perichondrium, and, passing inwards, entered and broke up the cartilage into segments; blood was also extravasated in the subcutaneous tissues. The deformity of the ear was caused by the fracture of the cartilage in this manner and the fixation by blood-clot of the displaced fragments. The specimens were taken from patients who were chiefly general paralytics from thirty to fifty years of age.

Dr. ARNOLD CHAPLIN showed two specimens of Stenosed Mitral and Tricuspid Cardiac Orifices. The first was taken from a girl aged eighteen, who was admitted with shortness of breath, swelling of the legs, and subnormal temperature. There was also ascites, with a greatly enlarged liver. At the cardiac apex there was a presystolic bruit, followed by a faint systolic murmur; the lungs were much congested, and there was an attack of hæmoptysis two days before death. There was no history of acute rheumatism or of chorea, but an attack of scarlet fever occurred two years ago. The shortness of breath had existed for the last three years. At the necropsy there was found stenosis of both mitral and tricuspid valves, and there were recent infarcts in the bases of the lungs. He thought the tricuspid disease was due to congenital causes, and that it had given no trouble until the mitral stenosis developed later, the latter being due to a rheumatic attack associated with scarlatina. The second specimen was removed from a patient aged twenty-five, who had suffered from rheumatic fever when fourteen years of age, and since then had had shortness of breath, swelling of the legs, œdema, and cyanosis. The heart was enlarged, there being hypertrophy of all the chambers, the mitral valve being much stenosed and the tricuspid little so. He thought that in this case the narrowing of the tricuspid orifice was the result of chronic inflammation due to strain thrown on the right heart.—Dr. ROLLESTON said that in nearly all the collected cases there was stenosis of both sides, and if this were so, the lesion was presumably not congenital, for congenital disease usually attacked the right side alone. He held that the tricuspid lesion was secondary to the mitral, and due in all cases to chronic inflammation produced by strain. If the case had lasted a long time stenosis was more likely to occur than regurgitation.

Dr. WALTER EDMUNDS showed an Aneurysm of the Internal Carotid Artery, with syphilitic occlusion of the left subclavian and narrowing of other arteries. The patient, a male, aged thirty-six, was admitted to St. Thomas's Hospital, under the care of Sir W. Mac Cormac, on Nov. 6th, 1891, suffering from a pulsating tumour in the neck. It had been noticed a month, and had been rapidly increasing in size; it caused no pain or discomfort, but was somewhat tender to the touch. A few days before admission he had had a sudden attack of giddiness which caused him to fall, but he soon recovered. The tumour was on the right side of the neck, and situated near the bifurcation of the carotid; it pulsated forcibly and expanded with pulsation. Examination of the tumour sometimes caused an attack of faintness. There was no pulsation in either temporal artery, nor could any pulsation be detected in any part of either arm; a loud murmur could be heard about the base of the heart. There was a history of a venereal affection twelve years previously, and of cutaneous ulcers and of hair falling out two years ago. No operation was undertaken, the patient being very ill. He died comatose Nov. 18th, 1891. At the necropsy the heart was somewhat enlarged, pericardium adherent, but adhesions could be readily broken down; a rounded prominence, two inches in diameter, projected from the groove between the right auricular appendage and the pulmonary artery. On section this proved to be a gumma which was breaking down in its centre. The arch of the aorta was uniformly thickened, the thickening being mainly of the outer coat; the thickening extended to the innominate. The second part of the right subclavian was greatly thickened in its outer wall, and the lumen was so reduced as only to admit the passage of a bullet probe; the right axillary, brachial, and radial arteries were small and thin-walled, but showed no sign of disease. The right common carotid was nearly normal. The right internal carotid had springing from it, close to its origin, a globular aneurysm two inches and a half in diameter. After the origin of the aneurysm the internal carotid continued normally. The external carotid was narrowed and adherent to the aneurysm.

The left common carotid was greatly narrowed at its origin from the aorta, and would only just admit the passage of a bullet probe; the left external and internal carotids were also narrowed. The left subclavian was narrowed at its origin, and at the distance of three-quarters of an inch from the aorta it became completely impervious, ending in a fibrous cord. The descending aorta was enormously thickened, the thickening being mainly in the outer coat. The abdominal aorta and iliac arteries and also the intracranial arteries were normal. The liver, kidneys, and spleen were all enlarged, but showed no sign of past syphilitic disease.

Dr. HERBERT HAWKINS showed the Aorta of a child aged eleven, who died in St. Thomas's Hospital, as it was supposed, from acute nephritis. It was found at the post-mortem examination that there was disease of the aorta from end to end; of the common carotid, subclavian, and internal carotid arteries of both sides. The renal arteries were thrombosed. The disease consisted of grey translucent patches, which showed microscopically a development of uniform cellular tissue between the elastic lamina and the epithelium, and some of the patches showed a deposition of firm white clot upon the endothelium. The spleen showed signs of old disease. For three inches above the bifurcation of the aorta there was a lamina of firm clot nearly closing the lumen. There was also similar disease throughout the pulmonary arterial system. There was no definite history of congenital syphilis, but two other children had died in infancy, and he thought the case was probably of syphilitic nature.

Mr. HURRY FENWICK showed a specimen of Acute Traumatic Epithelioma of the Root of the Penis. The patient, aged forty-seven, began to suffer from priapism three days after the receipt of a blow in the crutch. Hæmaturia appeared at once, and continued until near the termination of the case. The penis became erect, increased rapidly in girth, and finally sloughed away. The duration of the case was three months. Secondary deposits were found in the right kidney, liver, and lung, the initial deposit being apparent in the region of the bulb.—Dr. RATCLIFFE asked if calculi were found in the carcinomatous kidney, for stone had more than once been found in connexion with squamous epithelioma of that organ.—Mr. SHATTOCK was able to confirm this observation, and added that a large sarcoma of the crus penis was recently removed in St. Thomas's Hospital.—Mr. FENWICK, in reply, said that no calculi were present, and he had only found stone in one case out of eight of malignant disease of the kidney under his observation.

Mr. SHATTOCK showed a Testicle between which and the vas deferens and, in close relation with the epididymis, was a cyst, which from its relations, had clearly arisen in a vas aberrans. He named it "Parepididymal," since, like the organ of Giraldès, such vasa aberrantia were remnants of Wolffian tubuli related to the epididymis. That the cyst shown had no connexion with the Müllerian duct appeared from the fact that the hydatid of Morgagni between the head of the epididymis and body of the testicle was present. In a case of persistent Müllerian duct lately reported by Mr. Lockwood, the duct, as in Dr. Ord's well-known case, descended from the kidney towards the prostate; and on the corresponding side the hydatid of Morgagni was absent. Why, in both these instances, the upper end of the persistent duct remained connected with the kidney and did not migrate with the testicle into the scrotum had not, so far as the author knew, been satisfactorily explained.—Mr. DAVIES COLLEY inquired as to the contents of the cyst, which appeared to him clinically to resemble a spermatocele or an encysted hydrocele.—Mr. SHATTOCK replied that the contents were not examined, but that they were probably of the same nature as those of an ordinary encysted hydrocele.

Mr. W. W. H. TATE showed a specimen of Malformation of the Heart taken from a man aged twenty-three, who was admitted into University College Hospital, under Dr. Vivian Poore, with pneumonia. There were loud systolic and diastolic murmurs heard over the mid-sternal region. There was no cyanosis and no history of previous cardiac disease. The patient died of pneumonia five days after admission, and at the necropsy a communication between the aorta and right ventricle was discovered, there being a passage from the aorta at the lower part of the sinus of Valsalva and ending in a perforation in a trumpet-shaped membrane situated between the septal and infundibular segments of the tricuspid valve. He believed that the case was unique, and that it arose from a hernial protrusion of the aorta into the right ventricle, which afterwards perforated.—Dr. HALE WHITE said that a boy three years of age, who had had influenza, came under his notice at Guy's Hospital with a loud to-and-fro murmur over the whole of the chest. At the post-mortem examination there was found an aperture in the undefended space at its upper part, and there was a funnel-shaped projection, like that in the specimen shown, which passed into the right ventricle. He regarded the case as one of congenitally imperfect septum in which the aorta had bulged into the right ventricle and had then given way. A systolic murmur was present whenever the left ventricle communicated with the right, and to this a diastolic murmur was added if the aorta also opened into the right ventricle.

Dr. J. R. RATCLIFFE of Birmingham showed a Uterus Bicornis, the left horn of which was pregnant. The patient was a woman aged thirty, who was brought into the General Hospital at Birmingham after a crane accident, and she died of fractured pelvis. The uterus showed two horns of nearly equal size, both measuring four inches and a half in length and six inches in circumference. In the left horn was a fœtus of between the second and third month of gestation; the placenta was attached to the posterior surface of the cavity. The vagina was five inches long and very broad, with a ridge on its anterior and posterior walls. The right ovary contained a well-marked true corpus luteum. The woman had had one normal labour and no abortions. She was not aware that she was pregnant, for she had menstruated regularly. This latter fact made the case of great interest on account of the possibility of superfœtation, and the specimen also raised the question of the manner of transference of the ovum from the right ovary to the left horn.

The following card specimens were shown:—

Dr. E. T. WYNNE: Sarcoma of Gall-bladder and Genital Organs.

Dr. H. D ROLLESTON: Guinea-worm in Subcutaneous the Tissue of Calf twenty eight years.

Mr. ALBAN DORAN: Adeno-sarcoma of Breast weighing 8lb.

Mr. W. F. HASLAM: Sebaceous Horn.

Mr. S G. SHATTOCK: Columnar-celled Carcinoma of Male Breast.

Mr. J. H TARGETT: (1) Congenital Myxoma of Neck; and (2) Ulceration of the Intestine after Fracture of the Spine.

HUNTERIAN SOCIETY.

Hydatid of Spleen.—Graves' Disease.—Eye Diseases.

A MEETING was held on April 27th, F. Gordon BROWN, M.R.C.S., in the chair.

Dr. JAS. GALLOWAY read for Mr. HOPE GRANT and Dr. E. A. SNELL notes of a case of Hydatid Disease of the Spleen, with the discharge of membranes from the rectum twelve years later. The patient, a female, when aged eighteen years suffered from a large tumour in the left side of the abdomen, having a notch in front. Two years later a copious watery discharge, filling two chamber utensils, came away with the urine, and the tumour nearly disappeared. Ten years later, having in the interval enjoyed good health and borne five children, she passed, after much forcing pain, a mass of membranes per rectum, and she continued to pass pus both by rectum and urethra. There was still a small tender swelling in the splenic region. The membranes were shown. Dr. Galloway had examined them, and found very characteristic hydatid structure.

Mr. CARDEW read a paper on the Electrical Treatment of Graves' Disease. He recommended the use of the continuous current from two to three milliampères in strength; the positive electrode, three inches in diameter, to be placed on the nape of the neck opposite the seventh cervical spine; the negative electrode, one inch and a half in diameter, to be moved up and down the side of the neck, along the anterior border of the sterno-mastoid. The electrodes to be well soaked in hot water and applications to last about six minutes, three times daily. The immediate effect, as demonstrated by sphygmograms taken immediately before and after an application, was a diminution of the suddenness, violence, and rate of the heart beat, with less feeling of tension in the eyes when exophthalmos was present. A

stronger continuous current was found to cause, as evidenced by sphygmograms, an increase of the cardio-vascular excitement. A strong faradaic current had a like effect; whilst a weak faradaic current produced no effect; with a moderate current either no effect or the same as with the continuous current was produced. This latter method was therefore adopted as the most effective, and also because it was self-applicable. He found that if prolonged the application caused an increase of excitement; he therefore never used it for more than six minutes at a time. At least three applications a day were needed, since the effects lasted but for a few hours. A small portable battery, having an electro-motive force of about six volts, and a water voltameter to test the battery, were all that were required. It was difficult to order the treatment, so to speak, by rule of thumb, owing to the great variation in the resistance of the human body; but for all practical purposes this might be estimated at from 2000 to 3000 ohms, so that a battery having an electro-motive force of about six volts would be sufficient to produce a current of from two to three milliampères. The patient must be encouraged to persevere with the treatment and not be discouraged by temporary relapses.—Dr. HINGSTON FOX said that the erratic course of Graves' disease made one cautious in receiving therapeutical results. There were two leading means of general treatment: moral and hygienic control for the over-sensitive, excitable nervous system; and, secondly, nutritional helps. As to special means, belladonna had seemed useful in slighter cases; iodide of potassium, with bromides (and sometimes iron), in others. Leiter's cold coil to the thyroid was worth further trial. But nothing cured in the bad cases. He had used the weak constant current in about six cases, from a half to two milliampères. The patients liked it, and were willing to continue it long, and on the whole the results were encouraging. A cheap battery for out-patients' use was a desideratum.—Mr. MARK HOVELL approved of the electrical treatment.—Mr. E. A. BURGESS had used in India the inunction of red iodide of mercury ointment over the thyroid with exposure to the sun, and had found much benefit.—Dr. F. J. SMITH asked how the electricity acted. Did it increase nervous energy, or did it increase the power of the nervous system to restrain the energy when formed? The general measures detailed by Dr. Fox could not be applied to indigent persons, and here electricity seemed to step in as a substitute.—Mr. W. LANG alluded to Dr. W. Fitzgerald's masterly paper on the disease in a Dublin journal, where experiments on rabbits were described, showing that disorder in the central nervous system close to the medulla was the acting cause. His own experience was limited to cases in which exophthalmos was complained of; he found potassium iodide and iron useful.—Dr. ARTHUR DAVIES asked as to the average duration of the electrical treatment, and at which stage Mr. Cardew began it. A case he had brought before the Society had recovered without special treatment; in another case the symptoms were of twenty-two years' standing.—Mr. CARDEW, in reply, said the moral and hygienic measures were of course needed. Cases might be divided under three categories: those which recover unaided, those which recover with drugs or electricity, and those which do not recover. Many of his cases were of long standing, and had been under good physicians. The dry battery he used cost £1; it could be made for about nine shillings. He could not tell how the electricity acted, or through what nervous structures. He had not had a case under treatment for longer than ten months, and he treated them at all stages.

Mr. W. LANG read a paper on the Treatment of certain external Eye Affections—chiefly epiphora, follicular conjunctivitis, phlyctenular ophthalmia, and corneal ulcers and opacities.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

Influenza.

A MEETING of this Society was held on April 1st, Mr. H. W. Roberts, President, in the chair.

Dr. PITT opened the discussion on this subject by reading a short paper on the history and etiology of the disease. He referred briefly to the epidemics of 1693, 1733, 1762, and 1833, and described in detail the manner in which the recent epidemics—viz., that of Christmas, 1889; February, 1891; and November, 1891—first appeared, and how they spread. The disease is undoubtedly contagious, and there is a contagium vivum, but bacteriologists are not quite certain yet that it has been identified. The incubatory period is about two days. The contagium is capable of multiplying in the atmosphere, the infectiousness being enormously increased at crowded meetings of men, where ventilation is defective. It has been suggested that the air currents which descend to the earth in anti-cyclonic areas may be the means of the convection of disease simultaneously to places situated some degrees apart. On many occasions the epidemics have been known to occur among horses a short time before men were attacked. Unstable weather, fogs, and unusual swarms of insect life have frequently preceded attacks.

Dr. PRIOR PURVIS gave a short account of the epidemic of 1837, as it occurred in Greenwich in cases under his own observation. The mortality was very excessive in those advanced in life, one of the most striking symptoms being the rapidity with which patients became asphyxiated by the blocking up of the bronchial tubes, with a very tenacious mucus like bird-lime. The treatment at first adopted was "antiphlogistic," and the patients were bled, but, as this proved fatal, it was given up, and salines and ammonia were exhibited.

Mr. LOCKHART said that he remembered the 1837 epidemic when it occurred in Liverpool. The treatment there with ammonia and salines was very efficacious.

Mr. MOORE drew attention to the fact that Pfeiffer and others claimed that they had discovered the influenza bacillus.

Sir WILLIAM MOORE then read his paper on the Comparison of Influenza with Dengue. He said that the symptoms of dengue were chiefly at first headache, restlessness, chilliness, debility, pains in the back, limbs, eyeballs, and joints—febrile excitement. Sometimes the pains in the joints and fever commence suddenly, there being no preceding feelings of malaise. In from twelve to twenty-four hours an eruption appears like scarlatina; the glands of the neck, groin, or axilla may become tender; the joints swell; there is generally sore-throat, and the testicles may swell. During the eruption the temperature rises to 103° or 105°. This rise only lasts one or two days, disappearing as the rash disappears, after which there is almost total remission for three or four days. Then, with an accession of fever, a second eruption resembling measles appeared. A third attack may occur. Albuminuria may be a sequel, but gradually disappears. Dengue, therefore, more resembles scarlet fever than influenza, but differs from it in its being more decidedly epidemic, high temperature more rapidly attained and dissipated, the severe muscular and joint pains very characteristic of dengue but not scarlet fever, and in the fact that dengue does not confer protection against recurrence. Dengue is regarded as infectious, but the following experience appears to prove that it is non-infectious. In the autumn of 1874, when dengue was prevalent in all the villages of the country, the camp of the chief Political Officer of the Native States of Rajpootana, some 1500 strong, marched about 300 miles, from Aboo to Agra, at the rate of ten or fifteen miles daily, encamping as usual near the different towns, and no measures to prevent communication were or could be enforced. As Superintendent-General of Dispensaries in Rajpootana, Sir W. Moore was passing daily from the camp to the villages, and he constantly saw persons suffering from dengue; but not a single case occurred amongst the camp people, although there were the usual number of agues and ordinary maladies at the camp hospital. Possibly the tent life, with fresh air and ventilation, rendered the poison of dengue innocuous.

Mr. THOMAS MOORE followed with a paper on Differential Diagnosis. He mentioned the sudden invasion, malaise, depression, rapid rise of temperature, slow pulse, tongue moist and furred with red edges, and the thick, tenacious expectoration. He said the diseases it was most difficult to diagnose from were rheumatism, ordinary catarrh, and neuralgia. In rheumatism the characteristic rheumatic tongue and acid perspiration helped the diagnosis. Again, when pneumonia was present, was it a sequel of the influenza or quite unconnected with the epidemic? He thought that the pneumonia of influenza was very rarely lobar pneumonia, and the sputum was less rusty coloured. The very great prostration afterwards was the most characteristic symptom and helped the diagnosis "after the event."

Dr. FRANCIS TAYLOR then read his paper on Complications. The troubles referred to the respiratory tract claim the first place, and of them bronchitis is at the head. The

smaller tubes were specially liable to be implicated, and the bronchitis of influenza was very often of a marked suffocative type. With regard to pneumonia, although ordinary cases of croupous pneumonia were rather common at the time of the epidemic, as a complication of influenza he had only seen one doubtful case. Phthisis, pleurisy, empyema, sore-throat, and tonsillitis were met with as complications. Non-suppurative and suppurative otitis media have been fairly common. With regard to heart complications, in pericarditis secondary to pleurisy, with weakness of the heart muscles, he had not noticed the slow pulse during the febrile stage, but at the end of that period had seen it fall to 50 or less. Angina pectoris and pseudo-angina were met with. Nervous system: Had seen a case of meningitis. Various forms of neuralgia were very common, some of them being due to local neuritis; jaundice, prostatitis, cystitis, and suppurative parotitis were mentioned as complications. Finally, he remarked on the prolonged convalescence, which was generally longer in those who used their brain, and was often accompanied by mental depression.

The President, Messrs. Lockhart, Moore, Hartt, Cable, Marshall, and MacGavin, and Drs. Prior Purvis, Horrocks, Pitts, Tayler, Moore, Wainewright, Peachey, and Ernest Clarke took part in the discussion which followed the various papers.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

Exhibition of Cases.

A MEETING of this Society was held on April 8th, Dr. D. Lloyd Roberts, President, in the chair.

Dr. WALTER, of Manchester, showed a patient who had for many years suffered from a growth of the vulva, and asked the opinion of the members as to its nature.

Dr. LAUDER, of Manchester, showed two patients who lately had each a large fibroid tumour of the uterus removed at the Manchester Southern Hospital, and exhibited the specimens. The operation might be briefly described as an amputation of a myoma of the uterus by means of anterior and posterior flaps, consisting of peritoneum. After the tumour had been lifted out of the abdominal wound, the large vessels entering it from the broad ligament on either side were ligatured close to the growth with strong silk, and then divided. Running from the two lateral wounds thus made anterior and posterior incisions through the peritoneal covering of the tumour were carried, at a distance calculated to ensure flaps sufficient to cover in the stump. These incisions were made gradually, each portion of peritoneum being ligatured separately before being cut. The peritoneum was at the same time peeled downwards, and its raw surfaces united by means of silkworm gut sutures. After thus enucleating the tumour any large vessels, from which hæmorrhage might be feared, were tied separately with catgut. The flaps of peritoneum were then more accurately adjusted, and during this process any hæmorrhage which might occur was easily controlled by including the bleeding vessel in one of the sutures. Finally, the stump was dropped, a glass drainage-tube inserted behind it, the peritoneal cavity flushed, and the abdominal wound closed in the usual way.—Dr. WALLACE, of Liverpool, said that he had done this operation years ago, but had of late given it up, as it had one drawback—viz., the uterine cavity was liable to be opened. Still, he thought that he might again have recourse to it.

Dr. WALLACE, of Liverpool, showed a specimen of Tubal Gestation, which had been removed by operation. It was probably unique, as the fœtus was partly extruded from the fimbriated extremity of the tube, so that its development had taken place between this end of the tube and the ovary.

Mr. WRIGHT, of Leeds, related a case in which an unfortunate accident occurred during abdominal section. During the removal of a double dermoid ovarian cyst a pair of torsion forceps was placed upon a large adhesion, in the neighbourhood of the liver. On account of faintness the operation had to be hurriedly brought to a termination. The patient made a good recovery, but subsequently complained of tenderness in the epigastrium. Later on, a nodule was found to have formed at the upper part of the cicatrix. This was, seven months after the operation, cut down upon, when the pair of torsion forceps was found, and removed with difficulty. A fæcal fistula afterwards formed, but ultimately closed, and the patient did well.

Dr. HELLIER, of Leeds, exhibited drawings (1) of an apoplectic placenta; (2) of an impacted Zwanck's pessary.

Dr. MARTIN, of Sheffield, read the notes of a case of puerperal eclampsia.

Mr. R. FAVELL, of Sheffield, described a case of abdominal section for a small impacted ovarian tumour (specimen shown), where death was caused by omental adhesions.

Dr. DONALD, of Manchester, read a paper on the treatment of placenta prævia.

Reviews and Notices of Books.

Outlines of Theoretical Chemistry. By LOTHAR MEYER. Translated by P. PHILLIPS BEDSON, D.Sc. Lond., B.Sc. Vict., F.C.S.; and W. CARLETON WILLIAMS, B.Sc., F.C.S. London: Longmans, Green, and Co. 1892.

A CAREFUL and intelligent reader should gain a very clear conception of the modern views of theoretical chemistry from a perusal of this comparatively small but none the less classical work. Lothar Meyer is one of the best living authorities on the subject of chemical theory, and no apology need be offered by the co-elaborator of the great law of the periodicity of the elements for issuing a text-book under the above title, although similar works have already been published by Polis, Remsen, and Ostwald. The volume contains practically a *résumé* of the arguments advanced in the same author's larger work on the "Modern Theories of Chemistry." Professor Bedson, of the Durham College of Science, and Professor W. Carleton Williams, of the Firth College, Sheffield, are the translators of both volumes, and they have done their task well. The old but ever-fascinating story of the development of the theories of chemical science is gradually told that not merely students, but the "friends of scientific investigation who have neither the intention nor the time to concern themselves with the details of chemical investigation, may become acquainted with the general conclusions deduced." Thus, the definition and the scope of chemistry are first discussed; then follow, in natural order, short but fully instructive sections on methods of investigation, the quantitative composition of compounds, the law of multiple proportions, the atomic hypothesis, Dalton's views, isomorphism, specific heat, the kinetic theory, molecular weight, classification of the elements, the periodic system (in which section, by the way, Newland's work is distinctly recognised), until at last the reader is brought to study the more recent bases of argument. Round numbers as representing the atomic weights of certain elements are rigidly avoided, as indeed they should be in a work devoted to the discussion of theory. The weight of the atom of oxygen, for instance, is regarded as 15·96, not 16; and silver, 107·66, not 108; carbon, 11·97, not 12; and sulphur, 31·98, not 32. In the section on the molecular weights of gases it is shown how the kinetic theory of gases has afforded a means of estimating approximately the weight of a single molecule. Thus a particle or molecule of hydrogen, the lightest of all gases, has been calculated to weigh ·000,000,000,000,000,000,000,004 gramme (or, as it is obviously misprinted, grammes). In other words, one quadrillion molecules of hydrogen weigh about 4 grammes. Similarly a cubic centimetre of hydrogen measured at 20° C., and under a pressure of 760 millimetres of mercury, contains so many molecules that if they were laid side by side they would cover 9500 square centimetres, or very nearly a square metre. Accordingly, for each twenty trillion particles but a very small surface would be required to accommodate them, for in the length of a millimetre from four to five million particles could be arranged in a series! Of

course these numbers cannot lay claim to any special accuracy, still they serve to give some idea of the minuteness of molecules and of atoms also. One important kind of phenomenon appears to have been overlooked—namely, that while certain sections are devoted to optical isomerism and to a dissertation on asymmetrically linked carbon atoms, there is no mention made of the molecular magnetic refraction of bodies: the subject which Perkin so ably investigated. He showed that although under normal conditions an organic substance cannot affect a ray of polarised light unless its molecule contains an asymmetric atom of carbon, yet when surrounded by a coil of wire conveying electricity, or placed between the poles of a powerful magnet, any substance will become active. Proceeding on these lines he has obtained some very valuable results, which have materially added to our knowledge of the constitution of organic compounds.

English chemical literature has during the last year or so been considerably enriched by the additions of translations of standard German works. The large works of Beilstein, Wagner, and Lothar Meyer are cases in point; and now to these must be added the work before us, for it is a volume which should grace the shelf of all scientific libraries, whether private or public.

Outlines of Zoology. By J. ARTHUR THOMSON, Lecturer on Zoology in the School of Medicine, Edinburgh. With thirty-two full-page Illustrations. Edinburgh and London: Young J. Pentland. 1892.

IN a short preface Mr. Thomson states that this work is intended to serve as a manual which students of zoology may use in the lecture-room, museum, and laboratory; and as an accompaniment to several well-known works, we consider it fulfils its intended purpose well, and those who wish to make themselves acquainted with the progress that has been made in this subject may with advantage compare the sections of the present volume with those of Rymer Jones's "General Outline," published in 1871, or of Carpenter's "Zoology."

The volume may be divided into three parts: the first embraces general physiology, morphology, reproduction and life history, palæontology, geographical distribution, and evolution of animals; the second part deals with the characters and classification of the invertebrata, and the third with those of the vertebrata. Nearly the whole of the first part is the product of the researches that have been made during the last half of the present century, and, though lightly dealt with here, are yet sufficiently discussed to render the work a useful companion to any systematic course of lectures. In the chapter on Echinodermata Mr. Thomson discards the "fin-worm" theory of Haeckel, and agrees with the embryologists that the holothurians are, in form at least, nearest to the worm-like ancestor, whilst the interpretation which regards the five-armed starfish as a decentralisation of a flattened sea urchin is, he thinks, more plausible than that which regards the sea urchin as the concentration of a puffed-up starfish. A plate with description is devoted to the typical structure of each of the divisions of the echinoderms, and drawings are given of the several larval forms of auricularia: plutens and bipinnaria. This arrangement is carried out in all the sections, and Mr. Thomson does not hesitate to introduce a few remarks in regard to the geological relations of the various orders or genera when these are of interest. Thus he points out that the race of scorpions is of very ancient origin, one having been found in Silurian strata, and others nearly resembling those now alive in the carboniferous formations. In like manner he enlivens his pages with comments on the natural and life-history of the animals he describes. Thus, in speaking of spiders, he remarks that the males are much smaller than the females. It has been calculated that the disproportion is sometimes such as would be observed if a man six feet in height and weighing about 11 st. were to wed a giantess about eighty feet high and weighing 200,000 lb. He believes that the smallness of the males is in great part due to the fact that they are males, though some explain it by saying that the smaller the males are the less likely are they to be caught by their frequently ferocious mates. He acknowledges that it is difficult to understand how this characteristic smallness, though perhaps advantageous and likely to be favoured by natural selection, could be entailed on the male offspring only. In evidence of the careful manner in which the author has done his work, we may remark that Dr. E. C. Sterling's new type of marsupial notoryctes typhlopod is given, and the chief points in its structure are described.

We recommend the book very strongly as a full and reliable guide to the zoological student. The plates, though rough and diagrammatic, are clear and accurate. The paper, print, and general get-up of the book are excellent, and reflect credit on the publisher.

A Practical Treatise on Fractures and Dislocations. By FRANK HASTINGS HAMILTON, A.B., A.M., M.D., LL.D., late Professor of Surgery in Bellevue Hospital Medical College &c. Eighth Edition, Revised and Edited by STEPHEN SMITH, A.M., M.D., Professor of Clinical Surgery in the University of the City of New York, and Surgeon to Bellevue and St. Vincent's Hospitals, New York. Illustrated with 507 Woodcuts. London: Smith, Elder, and Co. 1891.

DR. HAMILTON'S work on Fractures and Dislocations has for so many years held the first place among modern treatises on this important branch of surgery that we are glad to see that its publication is not to cease with the life of its distinguished author. No better choice of an editor could have been made. Dr. Stephen Smith was closely associated for many years with Dr. Hamilton as his pupil, colleague, and friend; he knew the great aims Dr. Hamilton had in writing the book originally, and in preparing its successive editions, and the devoted labour he for years lavished on this work. In preparing this edition for the press, Dr. Smith has maintained the high character of the work most fully, and has not departed from Dr. Hamilton's lines except in small details. Some methods of treatment which are quite out of date now have been omitted, and modern plans of treatment, such as the operative treatment of fracture of the spine, are judiciously referred to. The most recent works on the subject have been consulted and drawn upon, many quotations from Mr. Pick's monograph, for instance, being intercalated. The number of the illustrations has been greatly increased—by over 100—but these additions, while very welcome and a great improvement to the book, are not novel, most of them being taken from Erichsen's, Bryant's, Stimson's, Pick's, and Pye's well-known works. The editor, in spite of these additions, has succeeded in reducing the bulk of the book by no less than 160 pages. This has been done by placing the clinical records of cases, extracts from other writers, and tabular matter, in a smaller type. On the whole, this edition is the best that has yet been published, and does equal credit to the memory of the author and the tact and ability of the editor.

The Rational Cure of Deafness and Discharge from the Ear. By Drs. SEXTON and DUANE. New York: J. H. Vail and Co. 1891.

IN this little work the authors bring forward their operations of removal of the tympanic membrane and ossicles in cases of chronic deafness with tinnitus and

in obstinate perforative otorrhœa. They do well to point out forcibly that the indications for the performance of these operations must be very carefully studied before they are undertaken. They also lay stress upon the difficulty of their execution, and it is obvious that they should not be attempted by anyone who has not large experience in the ordinary manipulations of aural surgery. Details of the operations and requisite instruments are not given. The reader is referred for these to Dr. Sexton's work on Diseases of the Ear. Eleven cases of the operation for chronic catarrh and nine for suppurative disease are quoted. These are but few out of many similar ones, and are not to be looked upon "as mere isolated instances of lucky cures." The results of the cases related are certainly remarkable, and we naturally ask, Have no failures resulted in the large experience of the operators? Have no serious results ever occurred? The very completeness and universal success which the authors seem to claim for these operations raise a legitimate feeling of doubt in the minds of those accustomed to follow and accurately note the results of even the simplest operations of surgery.

In cases of chronic catarrh, with adhesions and tinnitus, we can easily see how inflammatory affections of the secondary membranes or subsequent cicatricial formations, would cause the operation to fail. In cases of chronic otorrhœa, should the operator feel assured that the malleus and incus are mere carious sequestra, he would do right to remove them. But all practical surgeons and pathologists know that in a considerable proportion of the worst cases caries exists in the walls of the tympanum, and especially in the mastoid, the pus finding its way to the tympanic cavity through long and complicated sinuses. In such cases, the operation here given could hardly succeed. Again, the treatment of otorrhœa by ordinary methods is by no means so generally unfavourable as the authors would have us believe. Many such patients, by systematically practising the ordinary principles of cleansing the ear, pass through a long life unscathed by suffering or serious disease. It is in the neglected cases that the fatal results of this affection so often come before us.

The authors are entitled to have full consideration shown to their views, and certainly they should not be opposed with the "savage bigotry" complained of in the preface. We fear, however, that they claim too much for these operations. Any surgeon who proposes to undertake them will remember the difficulty of their full performance, will long study the indications present in any particular case, and will especially bear in mind the responsibility of operating in a cavity in close proximity to the brain and its meninges, and among parts difficult to render aseptic, which have been sodden for years in fluids swarming with micro-organisms of the most dangerous nature.

OUR LIBRARY TABLE.

The Archives of Pediatrics. Edited by WILLIAM PERRY WATSON, A.M., M.D. Vol. IX. No. 97, January, 1892. New York: Fairchild and Company.—The January number of the *Archives of Pediatrics* is above the average. It opens with an interesting original communication, by Dr. Northrup of New York, on "Scorbutus in Infants; American Cases (illustrated)." The details of eleven cases are given. The writer has taken considerable pains to obtain reports of cases, and his monogram (in which full justice is done to Dr. Cheadle and Dr. Thomas Barlow) is the best contribution to the subject we have seen from the American continent. There are two other original treatises. One, by Dr. Howard, jun., on "A Case of Congenital Malformation of the Heart"; the other, by Dr. O'Dwyer, on "An Improved Method of Performing Artificial Forcible Respiration." This is a modification of a method of producing artificial respiration devised by Dr. Geo. E. Fell of Buffalo. His method consists in forcing air into the lungs by means of a foot bellows—the connexion between the bellows and the lungs being effected by means of rubber tubing attached to a cannula in the trachea or to a mask applied over the mouth and nose. Dr. O'Dwyer has improved on this plan by devising a set of tubes which establish direct communication between the bellows and the lungs through the natural passages. Professor Jacobi contributes a clinical lecture, in which, amongst other things, he strongly advises in spinal paralysis the use of strychnia subcutaneously in preference to its administration by the mouth. Dr. Jacobi has little regard for proprietary medicines. We are inclined to think the profession will agree with him when he says, "Whatever medicines you hear about from me are officinal." Several interesting clinical cases are given, and there is a good "current literature" on hygiene and therapeutics, medicine, and surgery in their bearing on diseases of children.

The Dietetic Value of Bread. By JAMES GOODFELLOW, F.R.M.S. London: Macmillan and Co. 1892.—While, of course, it is extremely desirable that so important an article of food as bread should be made with scrupulous care, we can hardly go so far as the author of this text-book, who thinks that the people of England have been in a particularly bad state of health owing to the unsatisfactory way bread has hitherto been made. Yet this is the aspect of things which he assumes to have existed, for in the first chapter he expresses the belief that bakers, guided by a sound knowledge of certain particulars (that is, regarding hygienic requirements and the food value of bread), will do more than all the theoretical food reformers in England to help the people back to perfect health. The volume contains, however, a clear and lucid account of all that pertains to the "staff of life," its value as an article of diet and its chemical composition; and it would appear to be the only work that deals exclusively with the dietetic value of bread, although we are aware of one excellent work which deals certainly with the chemistry of the subject, besides also with many details of technical importance. Mr. Goodfellow has divided his book into six sections, and these when enumerated will give some idea of the scope of the work. Section I. treats of food, diet, and digestion; Section II., of white bread; Section III., of whole-meal bread; Section IV., of special breads; Section V., of diseases of bread; Section VI., of the medicinal properties of bread. The sections are in turn subdivided into chapters. The author makes some very sensible remarks concerning the value and use of whole-meal bread, as well as on adulterations and impurities in ordinary bread. Having made, as he states, an exhaustive series of examinations, he is entitled to speak with some confidence and authority on the latter subjects. Of the samples of bread examined by him in London, 333 out of 341 were pure, and only three were adulterated with alum. In the provinces, of 194 samples examined, 189 were pure, and only two contained alum. The work contains a valuable collection of analyses, and it will doubtless prove useful as a book of reference to students and others interested in the technics of bread. We have noticed but one serious error throughout the pages, and that is to be found in the formula of urea on page 11. It is written $(NH_2)CO_2$, instead of $(NH_2)_2CO$.

Bibliographie der Klinischen Helminthologie. Von Medicinalrath Dr. J. CH. HUBER.—Part II. gives the references to various works on Cysticercus Cellulosæ Rudolphi. After dealing very briefly with the history, the author follows the course laid down in the first portion of the work, and gives first the general literature on cysticerci in general; then general works on helminthology, in which the cysticercus

is discussed; next the German dissertations and French works, statistics, the general pathology and pathological anatomy; then in chronological order is given a list of the descriptions of the cysticerci in the brain, in the spinal canal, in the subcutaneous connective tissue and muscles, in the heart, liver, &c.; and of the cysticercus occurring in the same individual along with the tænia form. The same remark applies to this portion that applied to the first. It should prove an exceedingly useful list of references to any one working at the subject.

Premiers Secours en Cas d'Accidents ou de Maladies à Invasion Subité. Par le Dr. A. LÉON. Bordeaux: G. Gounouilhou. 1892.—This small work of eighty-one pages is illustrated by several lithographs. It deals with first aid to be rendered in cases of sudden illness and accidents and injuries, such as are unhappily of frequent occurrence in all large towns, cities, and centres of industry. The nature of the information is indicated by its title, and we have only to remark that it sets forth methodically and practically what is to be done and to be left undone until further and more skilled aid can be procured. The application of antiseptic principles to cases of traumatism is briefly but clearly inculcated. The information is arranged in four chapters, with an appendix, together with an interesting notice of the objects, composition, and work done by the Bordeaux Ambulance Society since its formation.

New Invention.

AN IMPROVED EVACUATOR AND TUBES FOR STONE IN CHILDREN.

DR. O. K. NEWELL some time ago published in the *New York Medical Record* an article on the improvement of evacuators for litholapaxy, and the later developments of the operation, and described an evacuator and special construction of straight tubes for use in such cases as they were suited to, laying especial stress upon the value of the straight tubes in conditions approaching the normal in adults, but especially in children. He also called attention to the short or, as he called it, the surgical distance into the bladder when the passage is engaged by the calibre of a metallic instrument. This distance, varying anywhere from two inches and a half or more in children to six or eight inches in adults. He now sends us a description of his evacuator, which he has since improved, without making material alterations in the principle of its construction. The taper joints are so improved that the form of stopcock is readily and unfailingly operated with a single finger. The evacuator is constructed on the principle that all of the fragments are received at the upper part of the bulb, that they are shot rapidly towards the bottom, sink at once into the receiver, and do not return through the tube. This has been shown to be in every way true, for even fine dust and sand may be quickly trapped with this instrument. Its chief advantages over all others Dr. Newell considers to be the fact that it is the simplest effective evacuator yet devised, that it is without any trap or valve, the bulb with receiver being of itself a trap; it has the shortest evacuating canal thus far made possible. It is the lightest evacuator yet made. Its capacity is nine ounces and three quarters. The form of stopcock, as already stated, is readily movable with a single finger. The evacuator is non-corrodible, being made of rubber and glass. According to his experience he considers these tubes are perfect as far as their application for evacuation of fragments from a child's bladder is concerned, there being no enlargement of the prostate in these cases or other abnormal conditions. The tubes were at first made of aluminium, and their lightness was an advantage, but the difficulty of working this metal has decided him to abandon the use of such tubes for the nickel-plated brass or silver ones.

FIG. 1.

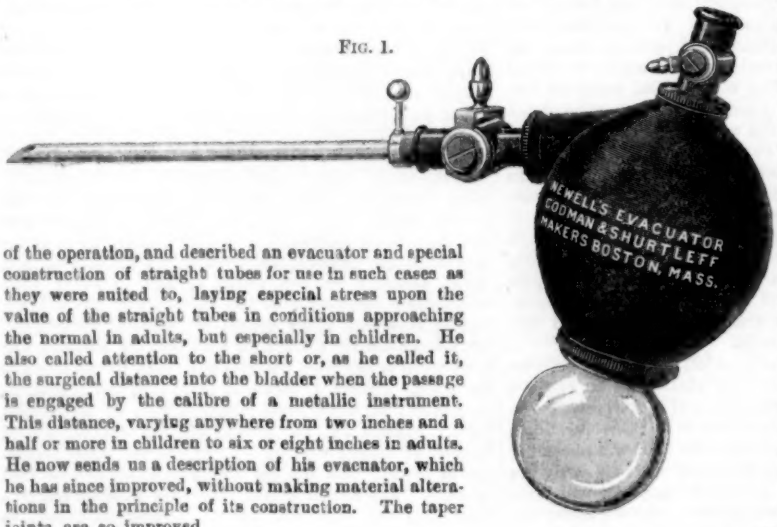
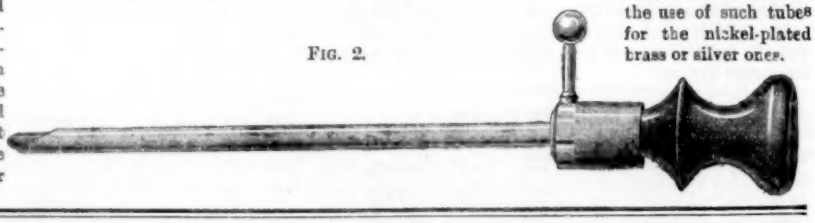


FIG. 2.



METROPOLITAN ASYLUMS BOARD.—At the usual meeting of the members of the Metropolitan Asylums Board, held on Saturday afternoon at the offices of the London County Council, Spring-gardens, the returns which were presented as to the fever and small-pox patients under the charge of the Board showed that, in regard to fever, 447 patients had been admitted during the fortnight, 45 had died, and 285 had been discharged recovered, leaving 1660 under treatment, or an increase of 117 as compared with the figures of the preceding fortnight. There were 54 small-pox patients in hospital, as compared with 45 in the preceding fortnight.

THE LADY AITCHISON HOSPITAL, LAHORE.—The annual meeting of this institution was held on Jan. 30th last, Lady Lyall presiding, in the unavoidable absence of Sir James Lyall. The report, which was read, was adopted. It was resolved to close the building and furnishing fund, paying the deficit of Rs. 30-4-1 from the current expenses fund. Some discussion took place as to the need of constructing a new City Dispensary; but, pending the receipt of funds for that purpose, a subcommittee was appointed to select a commodious house at a central part of Lahore city, and to report on the question of a new dispensary and its probable cost.

THE LANCET.

LONDON: SATURDAY, MAY 7, 1892.

DR. PYE-SMITH'S Lumleian Lectures on "Certain Points in the Etiology of Disease" range over wide ground and raise many points of extreme interest and importance. The subject is handled not only with wide knowledge but with true philosophic temper. The results arrived at are, as the lecturer says, mainly negative and destructive, but he adds, "we must get rid of superstitious remnants, misleading analogies, loose definition and illogical arguments before we can make progress in any branch of natural science. When the ground is cleared a solid structure may be built." Pathology is now undergoing the process to which so many other departments of science have had to submit—the process, namely, of overthrowing the false, in order to found the true, of uprooting the weeds in order to give the wholesome grain a chance of life. In the progress of science the human mind has always two tasks before it—first, the collection of facts; secondly, their generalisation and systematisation. We must first observe, then philosophise; but the process of accurate observation being slow and difficult, while that of specious philosophising is easy, there is a constant tendency for the latter process to outrun the former. Hence pathology, like so many other departments of science, is encumbered with doubtful theories, plausible but unverified hypotheses, question-begging epithets and the like. He does a good service who shows us how far and in what manner our theories have outstripped our facts, but the tendency to philosophise is an ineradicable instinct of human nature, which can never be wholly checked. "We must philosophise or die," said one of the most famous of Greek thinkers; and in all our impatience at the cumbrous and obstructive theories which have often impeded the true progress of medical science, we must never forget that a fact, while it remains isolated, is comparatively barren, and that it only becomes truly fruitful and light-giving when we generalise it, connect it with other facts, bring it under some higher law—in other words, until we philosophise.

Dr. PYE-SMITH at the outset announces the principle that "disease is as natural, as physiological, as health. No living thing is immortal, and life is a constant struggle against surrounding forces, in which each individual organism succumbs after a while, by handing on its life to its successor when it has ensured the victory of the race. Pathology is only a chapter in physiology, which for convenience we have separated from the rest." Whether disease is as natural as health depends, of course, upon our definition of "natural." We can understand how decay is as natural as growth, death as natural as birth; but we are not sure that enteric fever or pneumonia can in any true sense be said to be "natural." They are not part of the necessary evolution of the individual, although they have, of course, their place in the evolution of the race. This latter is evidently the point of view of Dr. PYE-SMITH, who says: "Let us look upon diseases, not as unnatural, lawless, heterogeneous, abnormal, revolutionary, but as parts of the vast order of creation. They are not to be explained by any single all-mastering principle of physical evil. The various ancient systems of pathology which pretended to discover a common origin of disease are all outworn, dead, or dying, as obsolete as the correlative systems of therapeutics which pretended to deal with disease as a whole by some universal antagonistic principle."

Dr. PYE SMITH enumerates the external agents which can injure or derange the ordinary functions of a living cell thus: (1) Mechanical injuries, (2) electrical changes, (3) extremes of heat and cold, (4) chemical agents. In addition to these the cell may be (*a*) starved for want of food; (*b*) stifled for want of oxygen; or (*c*) poisoned by its own excreta. Here we have the chief etiological factors in disease. As regards the much-disputed question of the influence of cold or chill in the causation of the more important diseases, the lecturer evidently doubts whether the local application of cold to any part is a frequent cause of inflammation of the subjacent organs. He questions whether "we find that bronchitis, pneumonia, or pleurisy follows the application of cold to the chest, and that enteritis or peritonitis is produced by cold to the abdomen, or nephritis by cold upon the loins." He points out that ice applied to the chest in cases of pneumonia, whatever its efficacy as a remedial agent, which he doubts, at least never produces inflammation of the lungs, and that ice applied to the head in meningitis or to the abdomen in intestinal hæmorrhage never causes inflammation of those organs. He thinks we are driven to the belief that "cold applied to the surface of the body has no local result beyond the effect upon the skin." The real mischief seems, he thinks, to depend upon "a sudden impression which we sometimes feel when exposed to a draught on going out of a hot room in winter, or on sitting, after profuse perspiration in summer. ..... The effect does not appear to depend upon the locality or the severity of the chill. In most persons in this country, and in temperate Europe and America, a coryza with sore-throat, followed by a slight catarrhal bronchitis, is by far the most common result; but in many persons, especially in the summer months, precisely the same kind of exposure of the face or head, which causes a common cold, will produce diarrhœa and other symptoms of catarrhal colitis, local pain, with irregular peristalsis and discharge of mucus, with furred tongue, loss of appetite, and slight rise of temperature; while in India, China, and the Southern States of America a precisely similar chill produces an attack of ague." It is evident that in putting these diverse results down to "chill" we are not doing much in the way of real explanation.

Dr. PYE SMITH draws attention to an important point, upon which we can entirely endorse his remarks—viz, that not only do acute diseases pass often into chronic, but that they are often developed out of chronic affections. Thus, phthisis often appears to begin acutely, whereas careful inquiry often brings out the fact that there has been antecedent failure of health, loss of flesh, &c. Abscess of the brain appears to begin as an acute disease, but it is found always to be preceded by injury, caries, or by primary suppuration. Even enteric fever often ensues upon weeks of

chronic diarrhœa. Genuine diphtheria is often preceded by non-specific and subacute angina.

Dr. PYE-SMITH strongly deprecates the frequent use of the term "diathesis." "To say that a man who has had rheumatic fever has a disposition to its recurrence is only to say that rheumatism is a disease which usually occurs more than once in the same person. We gain nothing by referring the occurrence of rheumatism to a preceding rheumatic diathesis." He "ventures entirely to deny that, apart from actual morbid events, either present or past, from hereditary taint or from such probabilities as exposure to disease from age, or sex, or occupation, that it is ever possible to predict the future advent of disease." Here, again, we seem involved in what is virtually a question of language. To say that an individual has a "tubercular diathesis" is only a short mode of expressing the facts that he has certain peculiarities of structure or function which experience shows are common antecedent conditions of tubercular invasion. Thus guarded, such a word as "diathesis" may serve a useful purpose; but we quite agree with the lecturer that the field of "diathesis," "dyscrasia," "temperament," &c., has been one of the happy hunting-grounds of false science.

The lecturer deals at great length, and with signal ability, with such questions as the influence of sex, age, occupation, climate, and race upon the etiology of disease. We cannot follow him into all the interesting questions which he raises. We may just note that he denies that gastric ulcer and pernicious anæmia are of more frequent occurrence in the female than in the male sex—as has so often been asserted; that he repudiates the idea that any change of climate has taken place during the last few hundred years; that he ridicules the notion that overwork, physical or mental, is a common cause of disease; that he does not accept the widely prevalent idea that there is any greater nervous wear-and-tear now than formerly, or that nervous disorders are on the increase.

Dr. PYE-SMITH, in his last lecture, discusses fully the etiological relations of such important diseases as chorea, phthisis, lardaceous disease, gout, rheumatism, osteo-arthritis, and some forms of dermatitis; but we must refer our readers to the original for information on these points. We have said enough to illustrate the value of these lectures. They will attract all thoughtful practitioners, especially those interested in taking a really philosophic view of the complex problems of disease.

EVERY surgeon is now familiar with the little dimple in the skin so frequently found in the crease between the buttocks over the tip of the coccyx or higher up over the lower end of the sacrum. It is usually called the "post-anal dimple." It varies from a very faint depression up to a deep dimple, which has been even compared in appearance to the anus, and when all forms and varieties of it are grouped together it is certainly a very common malformation. It is of no clinical importance, but it has great scientific interest, and many theories have been suggested to account for it. It has been supposed to have some connexion with the post-anal gut and the neurenteric canal, and another view is that it is the cicatrix of the spina bifida by which the human tail has been lost.

Of much less common occurrence are sinuses opening in the same situation and running upwards close to the coccyx or sacrum in the middle line, perhaps for an inch or so. These sinuses often have a very tiny aperture, and occasionally more than one opening is found. They may give rise to no trouble of any kind, and be only accidentally discovered; but at other times they become inflamed and suppurate, and then may give rise to a good deal of trouble, especially if their true nature is not recognised. For the suppurating tract remains open in spite of all ordinary surgical measures. Very commonly hairs are found in these sinuses, often growing from their interior, occasionally lying loose in their interior, and then they are stated to be hairs from the skin around, which have been pressed into the sinus by the friction and pressure of the clothes. These hairs are often supposed to be the cause of suppuration and of the obstinacy of the inflammation when once set up, or rather of the difficulty experienced in getting the sinuses to heal up. But the most important anatomical fact is that they are in all cases lined with epidermis, and it is this circumstance which throws light upon their origin and also upon their clinical peculiarities.

Occupying the same situation cysts are occasionally found, with a wall of thin skin, and usually containing fine hairs as well as fluid matters and fatty débris. It is easy to see the connexion between these cysts and the sinuses just referred to; alike in origin, the sinus has remained connected with the skin covering the part often by a very narrow orifice only, while the cyst has become entirely detached from it. We have the same association of sinuses and cysts in the neck in the situation of the branchial clefts. The most common explanation of the cause of these sacro-coccygeal sinuses and cysts is that they result from the imperfect closure of the lower ends of the dorsal laminæ of epiblast which rise up to enclose the neural canal. Their median position, their epiblastic origin, as shown by the nature of the lining of the cysts and sinuses, and the fact that the dorsal laminæ unite latest of all at the lower extremity of the spinal canal, all support this view. Quite recently, however, a slight modification of this view has been suggested by French and American observers, who, working quite independently, have arrived at precisely the same facts and conclusions. It is well known that in the early stage of its development the neural canal and the spinal cord extend the whole length of the trunk of the embryo, but that as development proceeds the lower end of the spinal cord recedes from the caudal end of the trunk, until at birth it is opposite the third lumbar vertebra. This has been usually attributed to the more rapid growth of the spine than of the spinal cord contained within it. With the object of throwing light upon this question, MM. G. HERRMANN and F. TOURNEUX in France and Dr. MALLORY in America have examined transverse sections made through the sacro-coccygeal region of fœtuses at different periods of development, and they find over the coccyx epithelial-lined tubes which are larger and more perfect in the earlier stages, smaller and more fragmentary in the later stages, of development. These canals and tubes are lined by epithelium, some-

times distinctly squamous in character, sometimes prismatic; the cells showing a tendency, on the one hand, to develop into cuticle, and on the other hand, to develop into those of the spinal cord canal. It seems clear, therefore, that the lower end of the medullary canal is gradually obliterated as the fœtus develops, that this obliteration takes place irregularly, and that it is most often incomplete at the lower extremity. A failure in this obliteration produces either a cyst or a sinus, and the post-anal dimple must be regarded as a depression over the spot where the medullary canal and the surface epiblast were last of all in direct communication. Such a view is more in harmony with the general facts of embryology than the older notion of the disproportionate rate of growth of the spine and the spinal cord, and it explains in the simplest way the occurrences we are considering.

We have already mentioned that the sinuses over the coccyx are often very troublesome to treat. There is only one way of properly dealing with them, and that is by a deliberate and careful excision of the whole of the sinus wall. If even a small fragment of this is left failure may follow, and as these sinuses run deep, close to the bone, great care is often needed in this little operation. The cysts must, of course, be treated in a like manner. The analogy between these coccygeal dimples, sinuses, and cysts connected with the obliteration of the medullary canal, and the white spots, dimples, sinuses, and cysts connected with the closure of the branchial clefts is very striking.

"KNOWLEDGE comes, but Wisdom lingers," says the Poet Laureate, and, by something like the irony of Providence, it is in the field of Education itself that the truth of the saying is most pointedly exemplified. Here has knowledge been telling us, in tones the least mistakable, that in woman the physical substratum of the mental processes differs specifically from that in man, yet, deaf to the direct teaching of wisdom, we ignore this difference and we force the developing mind of the one sex into the mould prepared for that of the other, in fond expectation that the outcome of both will be equal, and that the distinctive features impressed by nature upon each will disappear in the educational laboratory. This disastrous procedure has scarcely been long enough in working to evolve its no less disastrous consequences. Little more than a generation has elapsed since the ill-inspired initiative of amiable but half-enlightened enthusiasts essayed "the intellectual equalisation of the sexes." But even already we have had indications of the Nemesis awaiting persistence in the attempt—indications which more than justify the mental physiologist and the truly scientific educator in agitating for its prompt and definitive abandonment.

Not for the first time, as these columns can too significantly attest, has the warning been given against the forcing system to which girls are subjected in so-called high-school education; nor has it anywhere been more authoritatively conveyed than by Sir JAMES CRICHTON-BROWNE. On Monday last, before the Medical Society of London, he returned to the theme—none the less opportunely, as the system he so strenuously opposes threatens to fructify in what CARLYLE has designated as "diseased developments" in literature and art, even in politics and religion. His oration, indeed, had but one fault, and that in its having been delivered to the auditory that least required its lessons. Interesting and, in some important respects, novel as were his demonstrations of the differentiating characteristics of the brains of the two sexes, it was to the so-called "educationist" rather than to the medical man, that they should have been addressed. The profession already knows, though its knowledge may lack the precision born of Sir J. CRICHTON-BROWNE'S experience in the deadhouse and the physiological laboratory, that the man's brain is not only heavier than the woman's, but that in weight it has a wider range of variation; that the distribution of the brain matter differs in both, the parietal lobes corresponding with the motor area of FERRIER being larger in the male, while the occipital lobes, which are sensory in function, are larger in the female; that the grey substance in the woman's brain is so inferior in density to the same substance in the man's as to mean, in her case, a less highly nourished, less highly developed organ; and that, finally, the circulation is more richly supplied in the male to that region of the brain which underlies volitional, cognitive, and ideo-motor activity than it is in the female, in whom, on the other hand, the sensory region is the more abundantly flushed with blood. These truths, recognised by the profession, though once again brought before it with admirable lucidity and force in the oration at the Medical Society, are, we repeat, so imperfectly realised by the educationist that it is on him by preference that they ought to have been inculcated, as it is by him, be it remembered, that the task of forcing the girlish mind has been assumed or rather usurped. Once let him fairly grasp the deep-seated differentiation in brain tissue and in brain function between the man and the woman, and we will do him the justice to say that his attempt to equalise their mental evolution would not survive the revelation. A change, if not an absolute reversal, of plan will then be his course, and with it an avoidance of those evils which, even if the plan were successful, would far outweigh any advantage so artificially won.

We need not follow Sir J. CRICHTON-BROWNE in his exposure of the many pathological results of the non-natural system of education which he combats, carried on as that system is under over-pressure. He tells us, what indeed is becoming notorious, that the more intelligent heads of girls' high schools are themselves awakening to the risks and positive evils of which they have been the unconscious instruments. So alive to these have many of them become that they seek for palliatives in the form of physical or even athletic exercises—again betraying ignorance of those physiological truths the disregard of which must prove fatal to all systems of education whatever. As Professor MOSSO has in his classic work, "Sulla Fatica," demonstrated, it is the most pernicious of mistakes to suppose, or to act on the supposition, that by substituting gymnastics for study during an hour or so of the day rest can be secured for the brain, and with it a greater alacrity and ability to resume head-work. We are glad to see Sir J. CRICHTON BROWNE adds his authority to that of the Turinese physiologist, and warns the conscience-pricked educationist that games, gymnastics, *a fortiori* drill, commendable in their proper place, will bring no tolerance of over-pressure or counter-

balance its evils. "A man who has been standing on one leg for some time finds it a relief to change to the other, but the expenditure of nervous energy is going on all the time, and the brain that is wellnigh drained dry needs rest, and will not be replenished by merely altering the channel of outflow." As to the contention that woman possesses resources physical and mental which might yet be evoked and developed by discipline hitherto denied her, the answer is not less clear. Not promiscuous work, and that in excess, for the attainment of a non-natural and impossible ideal, but carefully selected and normally graduated work for the harmonious evolution of faculties peculiarly woman's own, is that which must be imposed by the educator of the future. It is vain to appeal to the exemplars, historical or legendary, of feminine proficiency in support of the hotbed system now in favour. A PORTIA in law, a TROTULA in medicine, a MARY SOMERVILLE in physics, are exceptions which it would be idle to force the generality of their sex to rival—exceptions favoured by organisation in the first instance, by special often accidental circumstances in the second, which the educationist cannot create at pleasure. "Woman," says the great singer we have already quoted, "is not undeveloped man but diverse"—most estimable when her diversity is, normally, most pronounced. Harmony in variety is the growing need of our civilisation; not the dead uniformity which JOHN STUART MILL, after doing so much to bring it about, came in his latter and better moods to deplore. Identity of conditions and environment is working too efficiently to induce identity in the human product—man becoming more and more the mere double of his fellow man. Are we to reinforce this tendency at the very time when it most needs correction by a strenuous and over-strained endeavour to equalise woman with her male complement? Such is not nature's manifest design. Even already persistence in the attempt is evoking the protest of physiological law, and the sooner the false idea that inspires it is replaced by the other and the true one the better for the generation that is rising around us and for the generations that have yet to be.

THE *Pioneer Mail* of April 14th has several paragraphs referring to the occurrence of cholera in India in connexion with the Hurdwar fair. The subject is one of great importance and of no little difficulty. Seeing that outbreaks of cholera have so frequently taken place at these immense gatherings, the question has been often asked why the Government of India does not stop these fairs altogether. That is a question easily asked, no doubt, but it would be a most unpopular measure for a Government to prohibit them. It is a great Hindu religious rite. Vast crowds of pilgrims, full of fanatical zeal, will make almost any sacrifice and run any risk to attend these fairs, and no Government likes to incur the odium or face the consequences, which would be serious and might even be disastrous, of abolishing them. The Government has to accept the situation and do the best it can by making the most practicable arrangements and taking all the sanitary precautions in its power; and, to do the Government justice, it spares no pains in these respects to accomplish its ends, and meets not infrequently with success. There were only two or three cases of cholera at the Hurdwar fair last year, although, as Dr. W. J. SIMPSON has informed us, cholera bacilli were found in the water of the bathing pool; whereas, at this year's fair, the disease appeared in an epidemic form, and the action taken by the authorities was to disperse the pilgrims. It is stated that the climatic conditions of this year's fair were of an exceptional character. The pilgrims go to Hurdwar from all quarters and from immense distances. The railway had brought 40,000 pilgrims, and they were still coming by thousands when the fair was broken up, and some 70,000 pilgrims were hurried away from the bathing place at Hurdwar. It is stated that some of the bathers stricken with cholera were taken from the stream only to die a few minutes afterwards. The unfortunate people are dominated by religious fanaticism and fatalistic belief. The action of the authorities in dispersing the pilgrims has been sharply criticised, as it is alleged that the disease was spread through the districts by the returning pilgrims. On the other hand, the *Pioneer Mail* asks what the mortality would have been if 500,000 pilgrims, wearied and fatigued by their journey, had assembled at Hurdwar and had been confined together on a relatively small area.

There are certain points connected with these gatherings and the prevalence of cholera which require to be studied and worked out with judicial care. Do the pilgrims bring the disease with them to Hurdwar, and are the country and hill villages in the vicinity of the fair quite free from cholera at the time of and before the fair? Has the disease shown any tendency or not to prevail among the populations occupying districts near Hurdwar at the particular season at which these fairs are held? How many of these gatherings have been attended with outbreaks of cholera and to what extent and in what respects did they differ from those fairs in which no epidemic occurred—e.g., as regards the numbers attending the fair, the climatic conditions, and the hygienic arrangements. When an outbreak of cholera occurs and the pilgrims disperse to their homes, suffering from and in numerous cases dying of the disease *en route*, to what extent have they carried the disease to others, and been the cause of its spread among those who have not attended the fair? Has an epidemic or an outbreak of cholera been originated in this way, or has the apparent spreading of the disease been attributable to a very small number of persons? What is wanted is a knowledge of the way in which the disease comports itself, based upon exact information as to what the facts really were, and recorded at the time, while they were fresh in the memory and capable of verification. When an enormous gathering of pilgrims has been cholera-stricken and dispersed, it is not so much whether *they* carry the disease and die of it as whether they give rise to its appearance or not in other persons and in the various directions in which they travel. There are, of course, a great many other points calling for investigation, but the opportunity offered by this Hurdwar epidemic of tracing out and recording the facts connected with its medical history will not, we hope, be lost.

There are two directions in which we may approach the study of cholera. The disease may be studied from the standpoint of the epidemiologist in its relation to time

and space and its progress and direction under given conditions, as in the case of the Hurdwar epidemic in question; or the disease may be regarded from the standpoint of the local, scientific, or clinical observer, who deals with the phenomena presented on a small scale, in their relation to individuals and their environment, within narrow and circumscribed limits of time and space. The latter is likely to be the more exact and fruitful method of investigation; but both methods are obviously necessary, and they are complemental of one another. We want such an exact record of facts and observations in either case as shall tell their own tale and point their own moral.

Annotations.

"Ne quid nimis."

THE INTERNATIONAL MEDICAL CONGRESS OF 1893.

THE Fifth International Congress of the Red Cross Associations of Europe, of which we have given some account, was eagerly embraced by the delegates of the signatory Powers as an appropriate occasion on which to give expression to a cordial greeting to Italy, in view of the yet greater International Congress she is to hold in 1893. Their spokesman was, fittingly enough, Dr. von Coler, representing the court of Berlin at the recent Red Cross discussions, to whom the Berlin Congress of 1890 owed almost as much of its happy issue as to Virchow and Lassar. We take this pleasing initiative of goodwill towards Italy as of the best augury for the mighty gathering of 1893, for which she is making preparations that of themselves must command a memorable success. By her own generous admission she has taken a leaf not only from the Berlin Congress of 1890, but from the great Hygienic Congress held in London last year, and will spare no effort to make her return for the hospitalities she enjoyed in the British and German capitals equally worthy of her people and of the august city on which her unity and independence have set their seal. She could have no better promoter of her approaching international symposium than her distinguished consultant Dr. Guido Baccelli, to whom Virchow at the Berlin Congress gave the heartiest "Glück auf" in the language which to Baccelli is almost as much his mother tongue as his native Italian: "Gratias ago Baccellio nostro amicissimo quam maximas ex intimo corde. Spero fore ut cum videamus in Capitolio virum consularem triumphantem!"

THE OATH OF HIPPOCRATES.

EVEN in these days of advanced evolution in medicine there are many matters connected with its fundamental principles which must retain a perennial interest. Opinions respecting these may be ancient yet not antiquated, of primitive simplicity and yet accurate and even scientific. Thus it happens that the antique fathers of our art have still a place among us which does not belong to a departed though honoured memory—the place of those who seem to live and to labour in the permanence of the work which their genius organised. For, notwithstanding defects of observation and instruction, there was more in early medicine than a mere chaos of irrational conjectures. Glimpses obtained through the scanty records of those times reveal many signs of an orderly system. Of such a kind is the light which has been cast upon the views of Hippocrates by Dr. F. R. Smith of Baltimore, in a criticism published in the Bulletin of the Johns Hopkins University on the professional oath commonly attributed to that eminent authority. We may remind our readers that, as with other and later pledges of the same kind, ethics form the substance of this declaration. For the spirit of professional brotherhood which it breathes, for its fearless and explicit denunciation of criminal practice in an age when this was prevalent, for its portraiture of the practitioner as a model of regimen, and for the wise discretion enjoined upon him in his relations with his patients, the oath might still be studied with advantage. It is worth noting, too, that "precept, lecture, and every other mode of instruction" embodied the Hippocratic idea of medical education. In that day, as in our own, theory and practice, the book and the clinic, constituted the essence of true studentship. An expressed objection to the performance of lithotomy affords an early sign of the deepening cleavage between the provinces of the physician and the surgeon. The father of medicine doubtless acted wisely in advising the division of a labour destined to become colossal. We feel assured, however, that a mind like his could not have rested content within the far narrower limitations approved by modern specialists. He would rather have agreed with those practitioners of wider views who, recognising the finite conditions even of disease and treatment, are equally careful to apply, under sanction of time and opportunity, every particular means of relief, while duly maintaining touch with all vital conditions of a more general character.

THE SMALL-POX TRAMP AND HIS LESSONS.

THE fuller accounts which we have received of the unfortunate tramp with small-pox who applied at the Denbigh Infirmary, and of his treatment there, in no way improve our opinion of the sanitary and Poor-law authorities in that town. The case is very instructive as to the protection of those who rely on what the people of Leicester believe in—namely, sanitary police. The man had come unchallenged from Liverpool, after attending the races. On his way he stopped at Ruthin three or four nights, with the eruption upon him. He stayed for one night at Denbigh in a common lodging-house before presenting himself at the infirmary. It is not pleasant to think of the number of people who may have been infected during his journey. But the serious part is that when he reached Denbigh Infirmary, and the disease was duly diagnosed and notified to the sanitary authorities, they replied that they had no power to deal with it. They have since made up for their inaction by strongly denouncing the infirmary authorities for not keeping the man in, though obviously the infirmary was not a fit place for the detention of such a case. In fact, it would have been cruel to the rest of the inmates to detain him there. He was, in the language of the Act quoted by the Mayor of Denbigh in his letter to us last week, most "improperly housed"—that is, he was housed where infection was sure to spread quickly to already afflicted people. The case was a modified one; and after being detained several hours, to give the sanitary authorities time to make provision for him, he was told that he could not be treated there. The sanitary authorities ultimately succeeded in getting shelter for this poor fellow in the common lodging-house he had slept in the night before! A sanitary authority has no excuse for being found so unprepared as in this case. It has had years to prepare a place of isolation for such cases, and it has been sleeping all the time. When the inevitable need arose, it proved as deficient in resource as it had been in providence. Surely in a town of 6000 inhabitants a better place than a common lodging-house could have been found in six or eight hours. Let us hope that the other authorities of the

country are not folding their arms in this fashion with no conception of energy except for the denunciation of others for not doing what they themselves should have done. We are not very hopeful on this point. The accounts of outbreaks in other places are not reassuring. The dreaded disease has been in such abeyance of late years that sanitary authorities have been neglecting their duties, and playing into the hands of anti-vaccinationists and other faddists. Now it looks as if a great test would soon be applied to them. All sensible people will see to their own protection. Those who do not are at the mercy of tramps who traverse the country unwatched, and of those whose interest it is to keep the disease concealed till it passes all bounds.

THE DISPOSAL OF STILLBIRTHS.

CASES showing the necessity for some change in the laws relating to stillborn infants occur with alarming frequency. Not long ago the county coroner for the West Derby district of Lancashire held an inquest upon the body of a deceased infant whose mother had tried to have it interred as a stillbirth, although it was the second child she had given birth to, both being illegitimate. More recently the same coroner held an inquest at St. Helens upon the body of an infant which was found in the possession of a local midwife. Whether it was stillborn or deceased could not be ascertained, as so much time had been permitted to elapse since its birth and discovery that decomposition was far advanced. Within the last few days we see reported a "burial scandal" at Strood, near Rochester, where it appears that a gravedigger, to save himself trouble, had, instead of digging a grave for the burial of stillbirths, deposited them in other persons' graves—a most reprehensible proceeding. The registration of stillbirths in this country appears to be as far off as ever, in spite of all that has been urged in THE LANCET and in the lay press. So long as it continues to be the law of the land that stillbirths are not to be registered, it becomes all the more imperative that their burial should be surrounded by every safeguard. This is evidently not the case now. A separate portion of each burial-ground should be set apart for these interments, the graves should be numbered, and there ought to be no difficulty in identifying that one in which any particular burial has taken place, and in exhuming the body within a reasonable period, should any circumstances render this desirable.

THE PHYSIOLOGY OF DREAMS.

AMONGST those who crowded the theatre of the Royal Institution last Friday evening to listen to Dr. B. W. Richardson's lecture on the "Physiology of Dreams" there were probably some who expected to hear of miraculous and mysterious events of dream and trance, whilst others would expect to receive from the discourse nothing more and nothing less than the latest views of a man of science on the subject of dreaming treated from its scientific side. The last-named had their way, for the lecture, although so prepared as not to be wanting in general interest, was exclusively an exposition of the phenomena and causes of dreams from the scientific side alone. There is no mystery in dreaming, it was contended, that is not already explainable on physical grounds, or that does not admit of being explained as investigations on purely physical methods progress. The phenomena of dreams were first discussed, and were classified under three heads. There are dreams which are entirely objective, brought about by the effect or effects of some external object or action; an external vibration acting upon the corporeal vibratorium. There are subjective dreams, dependent on some vibration occurring within the body itself, and carried by nervous conduction to the sensorium. And there are, thirdly, dreams due to a combination of the objective and subjective influences. These different kinds of dreams the lecturer defined from particulars which he, from his long experience in professional life, had noted down; and many details of a most interesting character were thus supplied. The dreams of fever, of indigestion, of exhaustion, of pain, of melancholy, of fear, of contention, of motion, of narcotism from inhaling different gases and vapours, and of circumstantial reasoning in sleep, were noticed and exemplified, the evidence in each case being to the effect that an external or internal influence was sustaining by vibration the condition of dream, and that such condition differed only from the waking dream in that it was less perfect and complete. In the second division of his discourse Dr. Richardson dealt with causes of dreams, in which he maintained that the dream is a purely physical phase of life; that it depends on two conditions, our own corporeal organisation, and the state, for a time, of the surroundings of our life. There is no more of mystery, of potency, of prescience, in the dream of sleep than there is in the dream of the wakeful day. We dream according to our nature, our habit, and our environment. Dream is a partial mental activity combined with a more or less complete physical repose. In illustrating this part of his subject, Dr. Richardson, from a series of beautiful plates, showed on the screen the parts of the nervous system directly or indirectly concerned in dreaming. Three of these, of the organic nervous system, were direct photographs from natural parts; another was from an original plate of Vesalius, rendering that great anatomist's view of the pneumogastric nerve in its course from the brain to the heart and stomach; and another still, showing the arterial skeleton, was from the famous drawing by Albinus. The mode in which vibrations could be carried from the external world through the senses to the sensorium, and from the viscera to the same centre, was in this manner delineated, and the cause of the objective and of the subjective dream made clear. A series of practical deductions brought to a close a lecture which came quite naturally within the domain of medical science, and yet from its every-day experience admitted of being discussed in a method perfectly understandable by a general audience.

THE ABUSE OF COCAINE.

MR. CONOLLY NORMAN of Dublin contributes a paper on this subject to the last number of the *Journal of Mental Science*. He says that undoubtedly much harm has resulted from a recent tendency to use cocaine as a help to break off the morphia habit, and from the mistaken notion that this drug can be employed safely and advantageously for this purpose. Cocaine, the author remarks, is more insidious than morphia; it fastens upon its victim more readily, and its hold is at least as tight. The special dangers of cocaine are said to be three: (1) That it is treacherous; (2) that it early produces breakdown, both in the moral and intellectual spheres; and (3) that it is intensely toxic, bringing about destructive tissue change after a comparatively short period of abuse. In the last respect it differs from alcohol and morphia, which may be long indulged in, in considerable quantities, without giving rise to serious structural change. In chronic cocaine poisoning, on the other hand, marasmus appears early and develops with extreme rapidity, convulsions are not uncommon, and chronic poisoning in animals produces, as Zanchevski has shown, degeneration in the cells of the medulla and spinal cord, and also in the nerve cells of the heart ganglia, and in the liver cells. The great danger of cocaine lies in the fact that it is the most agreeable and alluring of all narcotics. It causes no mental confusion, only a little more talkativeness than usual, the narcotic effects are not overwhelming, and there is no head-

ache or nausea, and the pleasant effects are produced with a comparatively small dose. But toxic symptoms are rapidly developed, and within three months of the commencement of the habit there may be marked indications of degeneration, loss of memory, hallucinations, and suspicions. Dr. Norman has seen three cases of abuse of cocaine. In one the drug was given as a substitute for morphia, in the second it was first given for a painful affection of the nose, and in the third the patient was in search of a new stimulant. The symptoms in the first case were hallucinations, sexual excitement, and loss of sense of the passage of time. The second patient was elderly, and, after six months' use of cocaine, he fell into a state of mental hebetude, with loss of memory and broken irregular sleep. He was also tormented with sexual excitement. In the third case, a young man, the memory was failing, he was furtive and shifty in manner, and could not speak the truth. He also had visual hallucinations, and at first sexual desire was increased, but latterly diminished. These cases seem to furnish fair examples of the usual condition produced—a condition sufficiently serious to put medical men on their guard against prescribing too freely a drug so insidious and so dangerous.

THE INAUGURAL BANQUET OF THE ROYAL ACADEMY.

THE First Lord of the Treasury, in reply to Sir F. Leighton's toast of "Her Majesty's Ministers," touched felicitously on some of the blemishes of London life which time seems to intensify rather than diminish. "When almost every right of property," he said, "is criticised by somebody or other," there is one which is left unquestioned, "the right of every man to erect on his own ground the most hideous and shapeless structure of discoloured brick which may suit his commercial instincts—structures which even the hand of time will never render tolerable, and which even decay cannot make picturesque." While Mr. Balfour, parodying the well-known aphorism of the late Archbishop of York, would rather "that Englishmen should be free than that Englishmen should be æsthetic," he is surely more than justified in his protest against the desecration of such noble sites as the margin of our "silent highway" by buildings that embody nearly every architectural fault. He had the edifices between Charing-cross and the river especially in view, the railway station with "the bridge that is appended thereto" being at once "an eyesore and an insult" to the citizens of London, who are, however, powerless to prevent such monstrosities before they become *faits accomplis*. A better cultured public taste finding expression through a more perfectly organised public opinion is the remedy we must look to, though the combination of the two in civic life is as yet remote enough. Art and literature have still much to do before that consummation is reached, but if we may believe Sir F. Leighton and the accomplished Hellenist, Professor Butcher, whom he associated with the toast of "Literature," the two main factors of improvement in ædileship are beginning to work in the desired direction. Professor Butcher dwelt convincingly on the need of a still better understanding between literature and science than has of late years been manifested—literature insisting too exclusively on the claims of form, science on those of substance. That the two are not incompatible,—that when each is at its best they are found blended indissolubly—he had no difficulty in illustrating, particularly from those ideal *chefs-d'œuvre* which abound in the language he teaches. "The Greeks," he says, "were able even to make science literary and to produce a treatise on medicine which bears the stamp of the great masters of language." This is admirably true, and the physician who is also a man of letters could supply instance upon instance from the Greek, and even the Latin, writers on medicine, to whom the remark might apply. Take the first treatise in Littré's edition of the Hippocratic collection, that on "Air, Water, and Locality," and the reader will not have gone far before he feels himself under the guidance of a true artist in words as well as of a true genius in science. The description of impending dissolution, known to all time as the "facies Hippocratica," could have been spoken or penned by no one but a physician who was also a painter in language. Even the patrician dilettante in medicine, the Roman Aulus Cornelius Celsus, had so much in common with his master, Hippocrates, as to have drawn a picture of epilepsy which survives in our medical classics and inspires a memorable page in Sir Thomas Watson's "Practice of Physic." But of all Greek medical writers who have made a professional treatise a masterpiece of language the one whom Professor Butcher had doubtless in his eye was Aretæus, who, though as late as the second century, wrote in the purest Ionic Greek, and has left us a gallery of pathological portraits which distinguishes him as the Æschylus of medical delineation. He is, according to Puccinotti, the most tragic, in the dramatic sense, of our professional masters, as may be seen on a perusal of his work in the original edited by Dr. Francis Adams, or even in the same scholar's own translation, to say nothing of its brilliant rendering in Italian by Puccinotti himself.

SUICIDE DURING PARTURITION.

ALTHOUGH the pangs of labour are severe, and the dread of operative interference is great with some women, yet it is most unusual for a parturient woman to commit suicide. Recently, however, a case occurred in Wigan where the woman—after some hours of labour, and upon the midwife telling her that it would be necessary to have the aid of a medical man, owing to its being a breech presentation,—whilst the husband went for the doctor left the house, notwithstanding the protestations of the nurse, and when the doctor and husband returned she was nowhere to be found. The medical man waited some time while a search was made for her, and then left. Next morning her body was found in the canal with the newly born infant. The shock produced by sudden immersion must have caused the uterus to expel its contents. The woman had not far to walk, and it seems probable that she had previously planned her self-destruction. An inquest was held, and the jury returned a verdict of suicide whilst in an unsound state of mind.

SURGICAL TREATMENT OF EPILEPSY.

DR. SACHS of New York has contributed an interesting and suggestive paper on this subject to the *New York Medical Journal*, and an abstract appears in the last number of the *Neurologisches Centralblatt*. He is inclined to regard primary or so-called idiopathic epilepsy as a somewhat more uncommon affection than it is usually supposed to be, being of opinion that many such cases are really the result of accidents which happened years before any symptoms appeared, and that some of them are the consequence of cerebral lesions in infancy. He adheres to the views of Marie, Féré, and Chaslin that the pathological equivalent of epilepsy is a sclerotic condition of the cortex which leads to a disturbance of the functions of the cells, and this sclerosis he regards as the result of some preceding traumatism. Months or even years may elapse, however, before the sclerosis has advanced sufficiently to give rise to discharges. From these views as to the nature and origin of epilepsy his therapeutic views are naturally enough deduced—viz., the removal, or impairment of the activity of the original irritant, or

the prevention of the secondary sclerosis or the neutralisation of its effects. In other words, where there is an injury to the skull or a hæmorrhage in the cortex immediate operation is desirable; and if the symptoms of secondary sclerosis are already present, then removal of the affected cortex must be carried out. But, as Dr. Sachs remarks, the limits of the sclerosis are not easily defined, and he even urges immediate operation for any skull injury. Of his four cases of operation for epilepsy only one was notably improved, but he had better results in cases of epilepsy, the result of injury in childhood, in which operation was undertaken. The three cases which he records were much improved, the epileptic attacks remaining absent for three or even six months at a time. There is no doubt that the opinion is gaining ground, and may now almost be regarded as a surgical axiom, that at least all cases of depressed fracture, whether producing symptoms at the time or not, should be operated upon; but whether this rule should be extended so as to include even slight skull injuries, it is as yet not easy to decide. The dangers of head operations are now reduced to a minimum, so that it may be said that in any case in which there is a probability of injury to the underlying cerebral structures operation is not only justifiable, but ought to be carried out.

PENNY FEES AT DISPENSARIES.

THE biennial dinner of the Finsbury Dispensary was recently held at the Albion under the auspices of the Lord Mayor. Five hundred pounds was the result, which the funds of the dispensary, depleted by the strain of the influenza and the operation of the City Charities Act, much needed. This satisfactory result was due very much to the effective eloquence of the Lord Mayor. There is only one sentence in his lordship's speech which we feel disposed to criticise—the payment of a penny by the patients for medicine or advice. The Lord Mayor approved this rule as likely to give the poor some sense of being not altogether objects of charity. The rule has been adopted by many other dispensaries. The moral virtue of the payment is doubtful. As a standard of the value of medical services it is decidedly objectionable, and has perhaps something to do with the fact that in free dispensaries the medical officers get nothing, and in provident dispensaries a very poor remuneration.

PRISON REFORMATORIES AND THE INCREASE IN CRIME.

THE American system of prison reformatories is on its trial. So far it cannot be said to have proved a success if we are to judge of this from evidence of a reduction in the number of the criminal population. According to statistics quoted in a recent publication of the Howard Society the proportion of law breakers in the United States, which in 1850 was 200 per million, stood in 1880 at 1169 per million, and there is too good reason to believe that it has now reached a still higher level. At first sight it may seem extraordinary that crime, a disorder of the social system, should not have proved more amenable to such curative efforts as those put forth by the authorities of the institution at Elmira, yet these attempts, in the opinion of many experienced and careful thinkers both in this country and America, have not only failed to realise their proper object, but have been directly instrumental in promoting the increase of crime already referred to. This view, there is unfortunately reason to believe, is not unsupported by reliable proof. For the explanation of this fact we must search into the constitution of the reformatory system. As regards the wholesomeness of the reform contemplated by this agency there can hardly be two opinions. Clearly the mere infliction of punishment has not so far done more than check the lawless outbursts of criminal instinct. It is evidently inefficient for the purpose of reformation, and the methods applied at Elmira and elsewhere are so many tentative endeavours to arrive at a more truly remedial form of treatment. Unfortunately those methods leave much to be desired. Founded on a law of kindness, they have been indiscreetly genial in operation. The criminal, no matter how guilty, once within the walls of the reformatory lacks nothing of comfort or convenience save his personal liberty. He is well lodged, well fed, has recreation in varied plenty, work which is not always compulsory, and food of superior quality in abundance. He is allowed free communication with his fellow prisoners, notwithstanding the fact that this has often proved in the history of prison management a source of moral contamination. The tendency to this latter evil is combated, but surely it cannot thus be effectually overcome, chiefly by means of education imparted in the form of lectures, book study, &c. Religious training is not excluded, but its place among the customary usages of the reformatory is not a prominent one. Thus the agent which, however we explain its power, has been found the most potent in regulating conduct remains too little utilised, and its place is filled by the feebler presence of a lecture-code of moral axioms. It is to indiscretions like these that we must ascribe the comparative unfruitfulness of the prison reformatory system. If, therefore, we would enjoy its best results, we must alter its methods. Justice demands that crime shall bear its penalty: prison life must be of a kind rather to repel by severity than to attract by luxury.

INFLUENZA AND THE POSSIBILITY OF AERIAL INFECTION.

DURING the late epidemics it occurred to us that the most valuable evidence with regard to the possibility of the spread of the epidemic through the air might be obtained from some of the isolated lighthouses on our coast. Cases of influenza having been reported both at the Bishop's Rock lighthouse (off Scilly) and at the Caskets lighthouse (off Alderney), we placed ourselves in communication with the medical officers who attend the residents on those lighthouses, and have to thank them for their replies to our queries. It is clear from these replies that no sufficient proof of aerial infection has been established. As to the Bishop's Rock lighthouse it s very questionable whether the first case reported was really a case of influenza. With regard to the Caskets, there is no question that some of the attendants suffered from the epidemic; but inasmuch as fishing-boats from Guernsey, Jersey, France, and England very frequently called—especially from the first-mentioned place, where influenza has been very prevalent,—it is impossible to feel assured that the infection was not communicated directly from persons infected with the disease. It seems to us of the greatest importance, in view of the opinions which are held as to the mode by which this disease is spread, that these points should be definitely put on record, as the older investigations as to the spread of this epidemic at a distance are not altogether trustworthy.

CHLORODYNE.

THE numerous fatal accidents resulting from the sale, without any warning of their dangerous properties, of preparations containing opium or substances derived from opium, render the action of the Treasury in connexion with "Dr. Collis Browne's chlorodyne" peculiarly necessary. As a result of several coroners' inquests and of representations from various quarters this preparation has been officially tested, and a prosecution has been very properly instituted against

the manufacturer rather than against any small retail shopkeeper, who might plead ignorance. That the case was regarded as one of considerable importance may be gathered from the array of eminent counsel employed. It was contended that chlorodyne was a proprietary medicine, and that the manufacturer had to take out an Excise licence and pay a stamp duty on every bottle. From a legal point of view a great deal appeared to depend upon whether the substance was a patent medicine or not. The prosecution maintained that the bottles should be labelled with the word "Poison," so that the public should know what they were actually buying when purchasing medicines containing a certain amount of poison, and children and adults with a tendency to commit suicide should be unable to obtain such dangerous drugs. For the defence it was urged that chlorodyne had been sold for over forty years, and that it was unwise to employ the word "poison" as it would tell people what to take if they wanted to commit suicide, and indeed that it might be safer to keep it as a medicine, as everybody disliked medicine, and the young particularly shrank from taking that which they knew to be a medicine. This curious contention strikes at the root of the matter, and questions the wisdom of the provisions of the Sale of Poisons Act. As a matter of argument, it may be admitted that for the purposes of suicide the red label appears to offer certain facilities; but it is relatively so easy to procure poisons that surely the true purport of the label is to protect the public against accidents through ignorance. For a medicine, even a patent medicine, containing 15 per cent. of chloroform and two grains to the ounce of morphine, to be retailed without any warning, all over the country, by drapers, grocers, and chandlers, is surely to invite accidents. The medicinal value of chlorodyne is not here in question—indeed, there is an official preparation much resembling it in the British Pharmacopœia; but then it is intended for use under medical advice and for sale by qualified chemists, and it is not dispensed freely for general, unskilled, haphazard employment in the treatment of coughs, colds, fever, and the like, as though it were absolutely free from danger.

EX-CATHEDRA UTTERANCES v. SCIENTIFIC CAUTION.

THE admission of medical controversial matter into the lay press is always, we think, to be deplored, and we certainly regret that, when scientific questions are mooted, they are not handled in the way in which men discuss them who have received a training in science and have acquired the spirit of caution which illumines the *savant* but darkens the counsels of the ignorant. No subject has suffered more in this way than that of anæsthetics. Men, whose education should have taught them better, have, when astride of their favourite hobby, thrown logic to the winds, and have not stopped even at personalities in their endeavours to force all the round men of the earth into the square holes which fit their own ideas and experiences. In a recent issue of the *Bombay Gazette*, for example, the cudgels have been taken up about the use of chloroform, and statements have been made which are as ill-judged as they are unjustified by facts. Thus a correspondent signing himself "Buggobutty Bose" takes Mr. S. Harris, M.R.C.S., to task for his supposed ignorance of the work of the Hyderabad Commission. He goes on to say that professional opinion was, before the session of the Commission, divided between the views of London chloroformists and those of Edinburgh, the former always taking the pulse as the guide, the latter always taking the respiration. He adds: "The Commission has proved that the Scotch method is right, and that to take the pulse as a guide to the effect of chloroform is unsafe. *It is therefore criminal.*" The italics are ours. The quotation reveals ignorance of the methods of London schools, which the discourteous sneers contained in the letter make the less excusable. The practice of London anæsthetists has been more than once put before the profession in our columns, and it is only fair to say that they attach quite as much importance to watching the respiration as the followers of Simpson and Syme. They differ, however, from them in believing that in human beings cardiac syncope may occur in various stages of anæsthesia, and that such an occurrence is not due to primary respiratory failure. Holding this belief, they consistently teach that the pulse should be watched *as well as* the respiration. It is not within our province to decide for one party or the other, but we must emphatically deprecate any aggressive writing on the part of disputants favouring one or the other view, especially when it does not stop short of preferring a charge of wholesale crime against the bulk of the English profession.

ANIMAL VACCINE LYMPH.

THE Local Government Board does not undertake to supply calf lymph to the profession for any other purpose than the vaccination of the first of a series of cases. Medical men have to rely upon their own efforts to maintain their stock of lymph, and as a result some private institutions exist in this country for the production of and the sale of calf lymph to those who desire to use it. We have had brought to our notice the institution which Dr. Hime has established at Bradford, and where he has evidently met with considerable success. The lymph is supplied in three forms—on points, in tubes, and as a conserve. Of the two first methods of preparation we have had ample experience in this country, but the use of conserve is limited, although in Germany and America it is much more commonly employed. The chief objection to calf lymph is that it must, if generally used, lead to arm-to-arm vaccination being replaced by vaccination with stored lymph, which has a less certain success. If Dr. Hime could obtain information as to the insertion success which attends the use of his lymph, the result would be of considerable interest. In the hands of many operators the skill of the vaccinators would no doubt vary, but this is equally true for arm-to-arm vaccination, and it would be well worth learning whether those who use calf lymph stored are less successful than when they vaccinate from arm-to-arm. Dr. Hime, in issuing his calf lymph, explains that it is impossible to collect it without some admixture with blood-corpuscles. This is undoubtedly the case, but after some years of experience of the use of calf lymph there is no reason to think that danger is caused by this circumstance.

THE VACANT CORONERSHIPS.

BY the death of Dr. Diplock another vacancy has occurred in the coroner's office, and we trust that those in whose hands the appointment of the coroners of Newington and district and of West London respectively rests will not have to look beyond the field of medical applicants for a suitable candidate to fill such important positions. The battle fought for the principle was toilsome and expensive, and the early results which followed upon the medical victory of 1838 are too obvious to students of forensic medicine and to those whose affairs lead them to deal with the coroner's court. The arguments in favour of the principle do not need to be reiterated in these columns. The battle was won on the strength of indisputable facts and indestructible arguments. We trust that the County Council of London will not dispossess the medical profession of an office which it has held so long with so much benefit to the general public. To

break in upon the direct succession of medical coroners of Middlesex, which commenced with the late Mr. Thomas Wakley, M.P., would indeed be nothing short of a catastrophe. Several candidates eminently suited to act in this capacity are, we understand, in the field. Among others, Dr. Wynn Westcott, who has acted as deputy-coroner for Central London and Central Middlesex for nine years, and who during his tenure of office has held more than 2000 inquests, offers himself as a candidate. We are also informed that Dr. Drew, who, in addition to his medical qualifications, is a barrister, and possesses testimonials of a high character as to his forensic ability and medical knowledge, comes forward as a candidate. We understand also that Dr. Grierson Gledhill, a Bachelor of Medicine, Master of Surgery, and Licentiate of the Apothecaries' Hall, and a member of the Northern Circuit, intends to apply for the vacant office. No doubt other medical candidates will come forward for the vacancies, and it is to be hoped that, in respect of the coroner's office, no retrograde step will be taken by the electorate.

RELIGIOUS MINISTRATIONS IN INFECTIOUS HOSPITALS.

THE contest still goes on in the *Surrey Advertiser* between the Rev. Mr. Fowler and other ministers of religion and those who claim for the resident medical officer a voice in the question as to the fitness or frequency of their visits. We have already expressed our opinion that those who have the cure of souls and those who have the medical care of patients should take note of each other's functions and the interest of the patient, not forgetting that in an infectious hospital unnecessary visits are a danger to the public. Reference has been made to the rules of the Fever Hospital in London on this subject. They are as follows:

48. Ministers of religion of all denominations shall have free and equal access to the hospital, but no minister of any denomination shall receive any payment out of the funds of the hospital in respect of his ministrations.

49. It shall be a standing instruction to the committee and officers of the hospital that any minister of religion desirous of visiting or ministering to patients of his own denomination shall be received with all courtesy, and shall be afforded all facilities consistent with the wishes and welfare of the patients and the convenient conduct of the hospital.

The first rule secures impartiality as between ministers of different sects and freedom of access; the second qualifies the facilitation of the visits of ministers by regard to the wishes and welfare of the patients and the convenient conduct of the hospital. It is obvious that the resident medical officer is the best judge, and the only available one of the medical aspect of "the patient's welfare," and should not be ignored. But we can quite believe, as we are informed by Dr. Hopwood, the resident medical officer of the London Fever Hospital, that he has always received from ministers of religion of all denominations the most courteous assistance in carrying out these rules.

THE OPIUM TRAFFIC IN ITS COMMERCIAL ASPECT.

IT was only consistent with the conditions of the case that the controversy relating to the opium traffic should be largely concerned with its moral and medical aspects. But for this fact, our own position with regard to it would be entirely different from what it is. At the same time, however, if we would appreciate the questions involved in their full significance, we cannot ignore their connexion with Indian commerce and finance. In the opinion of the Government of India, the time has not yet come when the substantial revenue accruing from this trade can safely be surrendered. No equal profit can be extracted from other sources of supply; no substitute method of taxation would prove as tolerable to the population. Such is the official position. That it is maintained with reluctance in the face of the ethical considerations above referred to we are willing to allow. It does not follow that it is impregnable, and it has indeed been assailed with some energy. Thus, for example, Mr. David McLaren, ex-President of the Edinburgh Chamber of Commerce, claims to have found in the opium traffic the true explanation of an admitted fact—namely, the disappointingly slow development of a general trade between this country and China as compared with that with other countries. He brings out in prominence the great disparity in this respect between Japan, where the importation of opium is prohibited and where British exports in 1888–90 realised £3,982,271, and her colossal neighbour, which spent only £8,451,908. His argument is briefly summed up in the words of a Chinese magistrate: "Cease sending us so much opium and we shall be enabled to take your manufactures." Considerable thought has likewise been devoted to the financial aspect of this question by Mr. Joseph Alexander in a paper entitled "Substitutes for the Opium Revenue." He directs attention to the gradual diminution of the opium revenue of late years in consequence of increased production in China, and he suggests that even if the profits reaching the Indian Exchequer from the sale of opium were entirely done away with they could not but be made good by other means. Among such are included the preparation of medicinal opium (an industry at present practically unknown in India), the cultivation of food crops in the opium-growing districts, and retrenchment in the services, both civil and military. He does not approve of the gradual diminution of the opium revenue, but advocates its immediate suspension. He would have this country allow the Indian Government as compensation a sum of £10,000,000 for the repayment of which and for the maintenance of Indian solvency he would rely upon the profits of increased trade with China and upon such measures of reform as those above mentioned. Clearly there is a good deal to be said for this presentation of the case, but we must for fuller details refer our readers to the paper itself. It is published, as is also that of Mr. McLaren, by Messrs. King and Son, 5, King-street, S.W.

THE PROCTORIAL SYSTEM AT CAMBRIDGE AND OXFORD.

As might have been expected, the case known as the "Spinning House case at Cambridge" has brought into renewed prominence the peculiar powers possessed by the proctors and the pro-proctors of that University in dealing with prostitutes and other disorderly females in the streets, as also with any members of the University who may be found accosting or being accosted by them. These powers are conferred by a very ancient statute, and are undoubtedly of a somewhat arbitrary character. About thirty years ago there was an alleged charge of a respectable girl having been arrested at Cambridge, taken to the Spinning House, and having had her hair cut. Other cases of a somewhat similar kind have occurred between that and the most recent case, which ended in favour of the defendant, the Rev. N. Wallis, the pro-proctor who ordered the arrest. No other result could have been expected. Whether the proctorial powers were designed, *inter alia*, to prevent the spread of venereal and especially of syphilitic diseases among the undergraduates may be questioned, but that they have had the effect of preventing these diseases is beyond question, and it is this circumstance which has induced us to notice the matter. The civic authorities of Cambridge have by a majority petitioned for the repeal of the Act which confers these special powers upon the University authorities, while the latter have, even by a larger majority, petitioned for their retention. It is scarcely reasonable for the former to demand that the keeping of order in the str et so far as

regards women and their behaviour therein with undergraduates, should be left to the ordinary law, seeing what the result of this is elsewhere. Although it is an offence for any woman to "be loitering or to be in any thoroughfare or public place for the purpose of prostitution or solicitation to the annoyance of any inhabitant or passenger," in the words of the Act of Parliament; so sure as evening comes round will the streets of most cities and towns be the scenes of open violation of the law, the two of the only towns where the law is respected being Cambridge and its sister University city, Oxford, not by virtue of the ordinary law, but of ancient statutes. Writing on this subject some years ago in a daily paper, a clergyman indignantly observed, "Our magistrates should exercise the law—should clear the streets of every one of these infamous women, and make them at least decent, if they cannot make them moral and virtuous." Sir William Jenner observed, even more forcibly, "Law could do much to diminish the mortality from syphilis; it could prevent the prostitute from plying her trade in the public thoroughfares, and thus keep temptation to some extent out of the way of the merely irresolute and thoughtless. It is a disgrace to authority that it does not frame and put in force such a law." Oxford and Cambridge are at present free from this reproach, and it is to be trusted that they will remain so. Among so large a body of young men as are to be found any term in either University, there must be a certain proportion of the merely irresolute and thoughtless, and of the viciously inclined also. It would be easy to prophesy what would be the result of any abrogation of the proctorial powers. The ordinary uniformed police could not, in addition to their other duties, deal with the evil so effectually as a special police, not only in preventing immorality among young men and young women, but also in deterring the latter from being decoyed into a hateful means of livelihood.

THE TRIAL OF DEEMING.

FREDERICK BAILEY DEEMING, *alias* Williams, was put upon his trial at Melbourne on the 28th ult. for the murder of his wife about Christmas last. The counsel for the prosecution traced out the connexion of the prisoner with the crime with an amount of detail that left no link missing in the long chain of evidence that was forthcoming to convict him of the murder. The skull of the deceased had been fractured in several places and her throat cut, and the body had been buried under the cemented floor of the house in which they lived in Australia. No attempt was made to show that the prisoner was not the perpetrator of the deed, and the only defence that was offered was based upon the question of Deeming's sanity and responsibility for his acts. His counsel attempted to make out a case for the prisoner's insanity by a vigorous *ex-parte* statement. He claimed first of all that the evidence for the prosecution was wholly and solely circumstantial; and he went on to say that the prisoner had been punished as a thief and a bigamist, and that "if it were true that there was lunacy in the accused's family, that he was suffering from diseases which had been described to the court, and that he was labouring under an imperious mandate to commit murder, as prisoner imagined, by his mother, in a vision," the question which had to be asked was, "Is it possible to listen to all these statements and say this creature is human?" The evidence of the medical experts who were called on behalf of the prisoner's insanity was, like the statements of his counsel, of the most hypothetical and unconvincing nature, and we are not surprised that the jury, in returning their verdict of "Guilty," added a rider with the express statement that Deeming was not insane. The unwholesome and morbid craving for the sensational in crime that has manifested itself in this case of mere brutish appetite is almost the worst and most regrettable feature of its whole history, as having a widespread and destructive influence on the better feelings of individuals. From a medico-legal standpoint, there are many points connected with the case, and with the nature of the professional evidence given at the trial, that appear to demand further consideration and criticism. We hope to deal with these in an early issue.

SMALL-POX AT PEMBROKE DOCK.

SMALL-POX has broken out at Pembroke Dock, and in so far as adequate means of isolation are concerned, it seems to have found the sanitary authority quite unprepared. The medical officer of health, writing to the Local Government Board on April 25th, talks of the authority being then in treaty for a hospital. At the same time vaccination and disinfection have to a large extent been carried out, and it is stated that, although twenty-five cases have occurred, there have only been two instances in which multiple attacks in households have occurred. The latest intelligence is to the effect that no fresh cases are taking place

NOTIFICATION DEFECTS.

THE Act for the Notification of Infectious Diseases, like other Acts of a similar character, does not take effect as regards any building &c. "belonging to Her Majesty the Queen or to any inmate thereof." It is due to this that scarlet fever in the Exeter Town Barracks is not notified to the medical officer of health; and since the children from those barracks attend the ordinary town schools, some apprehension is expressed by the sanitary authority. We can quite understand that where Royal and Government departments are under the charge of officially appointed medical officers there may be no need for the intervention of the local health officer; but if notification returns are to be of real value they should be complete, and sanitary authorities who are responsible for public health ought at least to be apprised of disease which is going on in their districts, so that they may take any measures of precaution that may be necessary beyond the precincts of the buildings that happen to be exempt from the operation of the general law. The fact of the notification being necessary would be an additional guarantee that inside the exempted building the needed measures of prevention were being adopted. The point deserves notice in case of any amendment of the law as to notification.

THE FOOT-AND-MOUTH DISEASE.

NOTWITHSTANDING the efforts of the Government, this bovine affection still lingers in the country, its last stronghold being in Kent. Here it prevails among sheep, and appears most difficult to eradicate. The places where it is localised are completely isolated, as it were, cordons of police surrounding them, and no animals are allowed to leave the circle or zone drawn around them. If this vigilance is maintained the disease must be soon suppressed; but the invasion should convey a most salutary lesson in our live-stock dealing with infected countries. Notwithstanding the most careful inspection at the ports of debarkation of cattle from continental countries reported to be free from infection, this insidious malady has found entrance, and in spite of the elaborate, extensive, and expensive machinery at the command of the Government, which has full powers to deal with it, it has appeared in several parts of England and Scotland, has inflicted much loss, and caused very damaging inconvenience to graziers, breeders, the cattle trade, and all those concerned in it or with it; and after two months it still remains in the country. Surely it would be far better

to dispense with the importation of live animals altogether, seeing that they form but a small fraction of our requirements, and rely only on a dead meat trade. This appears to be the course which it is desirable, both in the name of common sense and humanity, to adopt.

ROYAL MEDICAL BENEVOLENT COLLEGE.

THE annual general meeting of the governors of this institution will be held at the offices, 37, Soho-square, on Thursday, May 26th, when the results of the voting for the election of the pensioners and foundation scholars will be announced. The loss of the late Earl Granville as President of the College makes it necessary for the Council to appoint a successor to that office. It is proposed that the Right Hon. the Earl of Derby shall be elected at the forthcoming meeting of governors. Among the members of the House of Lords are some of the soundest, most intellectual, and earnest friends of education to be found in this country, and conspicuous among them is Lord Derby. He has largely devoted both time and talent on behalf of education. Speaking of Epsom College, the late Lord Granville said that to an educated assembly "nothing could be more grateful and agreeable than the progress of such a school or college which aims at material and intellectual advantage for the sons of medical men." We believe Lord Derby will share the views of his illustrious predecessor. Other business will be the election, as Vice-Presidents of the College, of Dr. Holman, who has for so long acted as treasurer of the institution; of Mr. J. J. Parnell, who has done great service to the institution; and of Mr. Wakley. In accordance with the provisions of the Act of Incorporation, ten members of the Council will retire at the meeting, and it will be proposed that nine of them—viz., Dr. Baines, Dr. Bradley, Dr. Da Tatham, Dr. Drage, Sir John R. Jennings, Mr. J. J. Parnell, Sir Edward H. Sieveking, Dr. Waterworth, and Sir Arthur Watson, Bart., Q.C.—be re-elected for a further period of three years, and that Mr. Hugh E. Vardon, be elected to fill the vacant place.

THE SUPPOSED POISONING OF A RACE-HORSE.

MUCH sensation, amounting almost to consternation, has been excited in the horse-racing world for some days by the announcement that Orme, a most promising thoroughbred colt belonging to the Duke of Westminster, had been poisoned at the Kingsclere training stables. The horse had already given proofs of such excellence as a race-horse that he stood in high favour as a probable winner of the great events for which he has been entered. It came, therefore, as a most startling surprise to sporting men, and even to a portion of the public who do not claim to be particularly interested in turf matters or in betting, when it was reported that this favourite *par excellence* had been tampered with by poisoning, and that his chances of running in the important engagements in which, it had been predicted, he was certain to be successful were very small indeed. As usual, all kinds of rumours and surmises were afloat as to the object and mode of poisoning, as well as to the nature of the drug. And the suspicion that the colt had really been poisoned was confirmed by the publication of a reward of £1000 offered by his noble owner for information that would lead to the conviction of the presumed poisoner. Various versions of the case are given, but it would appear that the horse was in good health up to a certain day, when it was observed that there was some salivation and trouble in masticating. The teeth were supposed to be at fault, and a horse dentist was called in, who appears to have attempted to remove one or two teeth, a rather unusual operation, we believe, on a young horse in process of shedding its teeth and growing permanent ones. Afterwards the tongue was found to be swollen, and the veterinary surgeon who was consulted discovered blisters—one account says abscesses—under the tongue. Otherwise there was nothing whatever, it would seem, to show that the health was in any way affected. The blisters or abscesses were lanced, the tongue was soon all right, and the horse seemed to be progressing towards recovery, though later reports are not so satisfactory. From the very incomplete statement of facts which has been made we are not at all in a position to arrive at a definite conclusion, but we are inclined to think it was not a case of poisoning at all, but merely an attack of simple gingivitis or glossitis, to which horses and cattle, no less than human beings, are liable, and that the inflammation was greatly aggravated by the dental troubles. The specially localised lesion, the absence of sloughing or injury to the buccal mucous membrane, and the apparently rapid recovery, do not indicate injury by a corrosive agent. At best it is a mere suspicion, which has but very slight foundation indeed when we take into consideration the above-mentioned circumstances, the great watchfulness exercised by the trainer by night and day, the manner in which the colt is attended to and stabled, and the remote position of the training stables. This, too, seems to be the notion among those best able to judge of the event; and certainly, for the credit of mankind, it is the one we should prefer to entertain until there is more tangible evidence of poisoning. It is indeed most difficult to believe that an irritant poison would be administered to a horse with malicious intent by anyone in the employment of such an acute and careful trainer as he who presides over the establishment at Kingsclere. The drugging of race horses is not unknown, but in such cases it was done immediately before the horses had to compete in a race, and had for its object the rendering the animals merely temporarily unfit to win. So there is reason to hope and believe that the rumoured poisoning of Orme is a false alarm.

MIDWIVES' BILL.

THE following will be nominated as the Select Committee on the Midwives' Registration Bill:—Mr. Bright, Mr. Egerton, Dr. Farquharson, Sir F. Fitz-Wygram, Dr. Fox, Mr. Howorth, Sir G. Hunter, Mr. H. F. Pease, Mr. Rathbone, Mr. Stephens, and Mr. A. J. Williams. A chairman will be immediately appointed and a course of procedure agreed on. But the impending dissolution of Parliament is likely to make any progress towards the settlement of this question very improbable.

THE UNIVERSITY OF LONDON.

AT the meeting of Convocation of the University of London, which will be held on **Tuesday next, at 5 P.M.**, the question of the Gresham University will be raised in the report of the annual committee, and will probably come under discussion during the meeting. The proceedings at the presentation on Wednesday will be exceptionally interesting, as it will be the first occasion on which the Earl of Derby, the present Chancellor, will preside.

THE MYTHOLOGY AND PSYCHOLOGY OF THE ANCIENT EGYPTIANS.

THE paper read at a recent sitting of the Anthropological Society by Mr. Joseph Offord, jun., on the Mythology and Psychology of the Ancient Egyptians was quite *hors ligne* in point of original research, besides showing rare familiarity with the findings of the later—chiefly French—Egyptologists. Every part of it was interesting, especially that devoted to the so-called Book of the Dead. We hope it will be made *publici juris*, confident that its acceptance with the ever-increasing circle of readers for whom the early civilisation of the Nile Valley is perennially

attractive must encourage Mr. Offord to continue his researches till he has thrown a fuller light than we at present enjoy on the healing art itself as it was professed and practised in the Egyptian foretime. Our standard histories of medicine—German, Italian, and French—are disproportionately meagre and unsatisfactory on this most interesting stage of the subject, and much yet remains to be contributed to our knowledge by investigators like Mr. Offord, whose labours bear the mark of special aptitude, prosecuted as they are in the intervals of other and by no means cognate avocations.

THE MEDICAL SOCIETY'S CONVERSAZIONE.

THE annual conversazione of this ancient Society was held on Monday last. Sir James Crichton-Browne delivered the oration on Sex in Education, a full report of which will be found in another part of our present issue. Afterwards the president held a reception, which was largely attended by the Fellows of the Society and by many distinguished guests. The oration was listened to with marked attention, and at its conclusion the orator received well-merited and marked applause. A vote of thanks to the orator was proposed by Dr. Hare and seconded by Mr. Henry Power. Cigars and refreshments were afterwards provided, and the string band of the Royal Horse Guards played a choice selection of music. The rooms were tastefully decorated with flowers and palms, and the electric light added much to the beauty of the effect, and the evening seemed to be well enjoyed by the large number of Fellows and guests who assembled. This method of happily terminating a session of useful work we heartily commend for imitation by the sister Societies.

THE ROYAL COMMISSION ON VACCINATION.

THE delay which occurs in the publication of the interim report of the Royal Commission on Vaccination is doubtless due to the method of procedure which has to be adopted. All reports of Royal Commissions have to be submitted by a Secretary of State to Her Majesty, and only after this has been done can they be laid before Parliament or made public. The Queen's journeys may in this case have added to the difficulty of complying with this invariable rule.

DIFFERENTIAL PULSE IN CERTAIN HEART AFFECTIONS.

PROFESSOR L. V. POPOFF, writing in the *Meditsinskoĭ Obozrénie* on the cause of a difference in the radial pulse on the two sides in certain heart affections, says that this phenomenon is frequently observed with mitral stenosis, associated with mitral incompetence, especially where there is considerable disturbance of the compensation, the pulse being small and irregular, and the dilatation of the heart, and especially of the left ventricle, very marked. Under these conditions the pulse in the left radial artery is found to be decidedly weaker than that in the right—sometimes, indeed, the latter may be easily counted while the former is scarcely perceptible. Sometimes the pulse is so small and weak that it will not give a sphygmographic tracing, and the difference can only be detected by the feel. As the heart's action improves the difference gradually becomes less and less marked. In explanation of this, Professor Popoff states that he found in these cases that there was a pressure of the enlarged auricle and its appendix, and even of enlarged pulmonary vessels, against the arch of the aorta, and especially against the part from which the left subclavian arises. Of course, if the heart's action is feeble such a pressure must diminish the circulation through the left arm in comparison with that through the right; but if the aorta is well filled out, this pressure may have but little effect. Again, probably the greater length of the arterial course on the left side, and the more acute angle which the left subclavian makes with the arch of the aorta as compared with that made by the right subclavian with the innominate, must be borne in mind, as it has probably some influence on the question. The differential pulse is more frequently observed in young or middle-aged subjects than in elderly people, as in the latter the heart, owing to the loss of elasticity and consequent elongation of the great vessels, lies lower, and therefore further away from the arch of the aorta.

HYDROCHLORIC ACID IN THE TREATMENT OF VOMITING

DR. ALKIEWICZ, writing in the *Nowiny Lekarskie*, mentions that in various kinds of vomiting he has found great benefit from small and frequent doses of hydrochloric acid, well diluted of course. In one case of the vomiting of pregnancy, where none of the ordinary remedies had any effect, hydrochloric acid proved successful, though it had to be given for a fortnight before it entirely arrested the sickness. In more than ten cases of cholera nostras in adults, with vomiting, hydrochloric acid was given with good results. Again, where vomiting was due to acute dyspepsia from errors in diet, and where it occurred in the course of influenza, scarlet fever, or other contagious diseases, the same remedy proved equally efficacious.

THE DISCIPLINARY POWERS OF THE ROYAL COLLEGE OF SURGEONS, EDINBURGH.

A CASE of some interest has been before the Calcutta High Court of Justice. Mr. Laurence Fernandez, M.D., and Licentiate of the Royal College of Surgeons of Edinburgh, carried on business in an institution known as the "Medical Hall," otherwise a chemist's shop. He advertised freely and sold drugs over the counter. We learn from the local press that for such practices he received a communication from the College of Surgeons of Edinburgh, informing him that the College considered his business catalogue highly objectionable and unprofessional, and unless it were withdrawn it would be necessary to consider whether his name should not be struck off the list. In reply, Mr. Fernandez wrote that he would discontinue the catalogue and cease his connexion with the firm. He then appears to have assigned his lease and his interest in the business to his mother (who transferred it to another son), came to Europe, and obtained the Brussels degree. He then went back, declared the deed of transfer only a bogus one, commenced a suit to recover possession, and succeeded. What will the Edinburgh College do now, to say nothing of the University of Brussels?

THE ACTION OF ANTIPYRIN ON THE BACILLUS OF DIPHTHERIA.

M. VIANNA of Bahia, in Brazil, has been investigating the action of antipyrin upon Löffler's bacillus, and finds that it has marked bactericidal powers upon the pathogenic organism of diphtheria, and also that it destroys the toxic properties possessed by the products of that microbe. His results are published in *Le Bulletin Médical*, March 30th, 1892. In his first series of experiments, M. Vianna found that in the proportion of 2½ per cent. antipyrin prevents the development of the bacillus of diphtheria in the various culture media in which it will usually grow. More than this, the addition of antipyrin to the tubes containing Löffler's bacilli in full growth killed them in less than forty-eight hours. The same result is attained in twenty-four hours, when the proportion of antipyrin is raised to 5 per cent. If the same proportions of the drug as those given above are added to the bouillon filtered from the bacillus, which will contain the toxic substances

(which have been so fully investigated by Dr. Sidney Martin, and described by him in the Goulstonian Lectures) elaborated by it, it may be proved that the poisonous products of the micro-organisms lose in part these toxic properties. For instance, guinea-pigs were inoculated with the filtered bouillon from cultures of the bacillus of diphtheria, and all died in less than three days; whilst if from 4 to 8 per cent. of antipyrin were added, the animals lived from five to twenty-four days, thus showing that although the drug did not render the inoculation harmless, yet its toxicity was considerably diminished.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Köhler, of the Friederich Wilhelm's Institute, for many years assistant in Professor von Bardleben's clinic, has been granted the title of Professor.

Dorpat.—Professor Heinrich Unverricht has been offered charge of the new hospital at Magdeburg.

Freiburg.—Dr. Gustav Killian, *privat-docent* in Laryngology and Otology, has been appointed Extraordinary Professor. Dr. Wesener, of the Policlinic, has also been appointed Extraordinary Professor of Medicine.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Karl Fromman, Extraordinary Professor of Histology in the University of Jena, whose chief work was on the Structure of the Ear and of the Central Nervous System, at the age of sixty-one. He resided for a time in England some thirty years ago.—Dr. H. Girard, *privat-docent* in Physiology in the University of Geneva.

SIR RICHARD QUAIN was entertained at dinner last week at the Garrick Club by a select company, including Mr. David Plunket, Mr. Irving, Mr. Toole, Sir Charles Russell, Mr. Edward Lawson, Mr. J. Hare, Mr. Beerbohm Tree, Mr. Comyns Carr, Mr. Pinero, Mr. A. Levy, Mr. Clement Scott, Mr. F. H. Maclean, and Mr. C. W. Mathews. Mr. Hare presented him, as a souvenir of their sincere regard, with two antique silver bowls engraved with the names of the donors.

PROFESSOR GEORGE HARE PHILIPSON, M.A., M.D., D.C.L., F.R.C.P., has been elected the representative of the University of Durham on the General Council of Medical Education and Registration of the United Kingdom.

PROFESSOR CLIFFORD ALLBUTT, the Regius Professor of Physic in Cambridge University, proposes to give his inaugural lecture on Tuesday, May 10th, at noon, in the new Anatomical Theatre.

THE inquiry into the question of fresh legislation on the subject of habitual drunkenness is, we understand, to be a departmental one.

THE ROYAL SOCIETY CONVERSAZIONE.

IT is meet that the Society which represents science should hold its first annual conversazione a few days after the opening of the Royal Academy in the adjoining rooms at Burlington House. Just as the one exhibition marks the progress made in art during the past year, so may the annual conversazione of the Royal Society be taken to indicate the advances made in science. Lord Kelvin received a number of Fellows and distinguished visitors at the conversazione held on Wednesday last, and the variety of subjects exhibited must have afforded interest to all grades of scientific workers. Electricity attracted, perhaps—as it has done in previous years—the lion's share of interest. The very remarkable phenomena exhibited by electric currents of high potential and extreme frequency recently investigated and ably demonstrated by M. Tesla formed the subject of Professor Crookes' beautiful demonstration. Professor Crookes, who is well known for his admirable researches on a related subject, explained that in these experiments the discharges from a battery of Leyden jars are sent through the primary wire of an oil induction coil. The wave length of the jar radiation is 300 metres, the frequency of alternation is 1,000,000 a second, and the electro-motive force about 100,000 volts. Stream and brush discharge, luminous conducting wires, phosphorescence of air, oxygen, yttria, sulphide of calcium, diamonds, rubies, &c., were amongst the most noteworthy phenomena of the secondary poles. Odd as it may seem, the physiological action of the high frequency current is feeble, although the shock of the force in its initial condition would probably kill instantly. An electric chronograph, designed for recording the velocity of projectiles and small periods of time in physiological research, was the ingenious invention of the Rev. F. J. Smith. Professor Oliver Lodge strikingly illustrated lightning effects and multiple flashes by the passage of sparks in and to water. A spark to water spreads out on the surface in a crow-foot pattern, showing apparently that the surface layer is a feeble dielectric. A spark under water is short and very violent, treating the water as a dielectric and producing concussion. Vacuum tubes without electrodes was the subject of Dr. Bottomley's exhibit. These tubes show all the beautiful phenomena of stratification, and also the phenomena accompanying the "sensitive state," though they have no electrodes. They show also the phenomena of molecular bombardment. The lecture-room apparatus exhibited by Professor Thorpe, and described recently in THE LANCET, is intended to demonstrate the general phenomena of a dust explosion, and more particularly coal dust, in explanation of the causes of colliery explosions. Touching the same subject, Professor Clowes showed an ordinary miner's safety-lamp, with supplemental hydrogen flame, for detecting and measuring minute proportions of firedamp or inflammable gas or vapour in air. An ordinary oil or benzoline safety-lamp is fed with hydrogen by a tube passing through the oil reservoir, and connected when necessary by a flexible tube with a light steel bottle containing compressed hydrogen. The hydrogen becomes kindled by the lamp flame, which is then extinguished by drawing down the wick. The hydrogen flame is adjusted to a standard height, and the amount of inflammable gas or vapour is estimated by the dimensions and appearance of the "cap" which is seen over the flame. Percentages of firedamp varying from 0·25 to 3 could thus be detected and estimated, and the luminous flame of the lamp alone, when sufficiently reduced, serves to detect percentages above 3 Specimens were shown by Professor Church illustrating the occurrence and properties of turacin, the red pigment (containing 7 per cent. of copper) discovered by the exhibitor in the wing feathers of certain plantain eaters or touracos. Dr. MacMunn exhibited the spectra of this interesting pigment. It is remarkable for its spectrum, which closely resembles that of oxy-hæmoglobin. Its derivatives have recently been found to give spectra closely resembling those of the derivatives of hæmoglobin. The demonstration of Mr. Frederic E. Ives of Philadelphia on composite heliochromy, a process of colour photography, was listened to with intense interest. The effects on the screen were very beautiful and wonderfully realistic, so that it was difficult to imagine that one was looking at a photograph at all. A geranium in bloom, in an ordinary flower-pot, and a little girl in a coloured frock surrounded by trees in full leaf, were particularly striking subjects, all the colours being portrayed with remarkable faithfulness. Professor Boys showed his photographs of flying bullets. The photograph of an aluminium bullet from a magazine rifle and smokeless powder, projected at the enormous velocity of 3000 ft. per second, was the centre of interest. Chemists have long struggled to produce certain gems artificially and with partial success; but it has been left to Mr. W. Saville Kent, a Fellow of the Linnæan Society, to induce and to accelerate the formation of pearl. He exhibited a pearl artificially produced through an operation performed by the exhibitor on the living animal.

Space prevents us giving more than passing mention to many other exhibits of equal interest. Such were, for

example, Professor Norman Lockyer's photographs of the new star and the Solar Physics Committee's photograph of the great sun-spot of February last, the optical pyrometer of Professor W. C. Roberts Austen, and, lastly, certain new and rare fish, some new to British and Irish waters and one altogether new to science, exhibited by Professor A. C. Haddon and Mr. E. W. L. Holt.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE Committee of the Association of Fellows of the Royal College of Surgeons met at 5 P.M. on April 26th, at 36, Grosvenor-street. In the unavoidable absence of the President, Mr. George Pollock, Mr. T. Holmes, the senior Vice-President, occupied the chair. The honorary secretary, Mr. H. Percy Dunn, read a letter from the secretary of the College, in answer to a letter sent by the committee to the President of the College, conveying the following resolution passed at the last meeting: "That the committee of this Association, having noticed that the Council of the College has appointed a committee to consider the claims of the Fellows, would suggest that a deputation from the Association of Fellows should be asked to meet the committee in order to set forth the views of the Association." The following was the secretary's reply:—

Royal College of Surgeons, Lincoln's-inn-fields,
London, W.C., April 25th, 1892.

DEAR SIR,—I am desired by the President to acknowledge the receipt of your letter of the 23rd instant, and to acquaint you that the same will be submitted by him to the Council at their meeting on the 12th proximo. The President is not aware that any committee has been appointed by the Council to consider the claims of the Fellows, "but presumes is to be the intention of those who framed the resolution reported in your letter to refer to a committee appointed by the Council on the 10th of March last to consider and report to the Council whether any, and if so what, further advantages can be extended to the Fellows."

I am, dear Sir, yours faithfully,

H. Percy Dunn, Esq. EDWARD TRIMMER, Secretary.

The difference between the two descriptions of the objects of the committee is more apparent than real. As long ago as the end of October, 1890, the Committee of the Association of Fellows sent a deputation to meet a Committee of the Council of the College, in order to urge upon them certain claims on behalf of the Fellows of the College. These claims were on the whole favourably received by the committee, but the consideration of the most important of them was deferred by the Council, in deference to legal advice, until the decision of the action Steele *v.* Savory. As soon as that action had been settled, a committee was applied for in the Council of the College, for the purpose of redeeming the implied pledge to the Committee of the Association to consider their propositions at the earliest opportunity. Of course, under the terms of the reference to the committee, other points can be considered besides those urged by the Committee of the Association of Fellows, and therefore the expression used in the letter of the honorary secretary of the Association may be regarded as too narrow. We are inclined to believe, however, that the object of the correction in the letter of the secretary of the College was rather to narrow the expression used by the honorary secretary of the Association than to enlarge it. The Council of the College is the fountain of grace and favour, and any advantages which may possibly be extended to the Fellows must rise spontaneously from this source and flow down to the Fellows, who can only be worthy to receive them if they have a becoming sense of the gracious condescension of the Council of the College. Unfortunately the spring often runs dry, and is rarely available except during the rainy season and disturbance of the elements, and it is the business of the Association of Fellows to prevent the too lengthened continuance of the period of drought. In the present instance the committee of the Association wisely decided that the mere verbal amendment of the secretary's letter did not call for any notice.

The main business of the committee was to consider a report of the proceedings of the Association of Fellows since March, 1890, when the first report was issued. The report had been drawn up by Mr. Rivington and Mr. Percy Dunn in the first instance and submitted to and approved by a subcommittee. After the report had been read and briefly discussed, it was resolved: "That the subcommittee be instructed (1) to complete and, where practicable, to abbreviate the report; (2) to have the report printed so as to enable each Fellow of the College to have a copy transmitted to him during the second week in June; (3) to insert a slip in the printed report asking (*a*) those who approve of the objects of the Association to notify the same to the honorary secretary, and to become members; (*b*) to support the candidates adopted by the Association for election into the Council."

The date of the annual meeting of the Association was fixed for Thursday, June 23rd, at 5 P.M., and the honorary secretary was instructed to write to the Council of the Royal Medical and Chirurgical Society requesting permission to hold the meetings in question in the rooms of the Society. It was also decided that the annual dinner of the Association should be held in the evening of the day of the annual meeting.

On April 2nd we announced that the Committee of the Association of Fellows had unanimously resolved to ask Mr. Tweedy to allow his name to be put forward as the candidate of the Association at the next annual election to the Council of the College. Mr. Tweedy now stated, in reply to that request, that he had decided, after due consideration, to accept the invitation of the committee, and if elected he would do his best to advance those constitutional interests of the Fellows for which the Association had been so long contending. He would much have preferred the selection of some other candidate; but as his colleagues on the committee desired it he was willing to stand. The number of seats to be filled at the ensuing election will be four, owing to the decease of Mr. Berkeley Hill and the approaching retirement of Messrs. Smith, Durham, and Lawson. Of these gentlemen, Mr. Lawson has decided not to be again nominated, so that there will be at least two absolute vacancies. In view of this fact, and of the intention of Mr. Lawson Tait, expressed at the last meeting of the committee, to come forward again, it was proposed by Dr. Collins, seconded by Mr. W. Barnes, and carried *nem. con.*: "That Mr. Lawson Tait be asked to stand as a candidate of the Association at the College election in July next." Mr. Tait has now fought the battle of reform under the auspices of the Association for three successive years, and has always polled a large number of votes—more, in fact, than some successful candidates have received in other years, and it is to be hoped that both Mr. Tweedy and Mr. Tait will be successful this year. Their election would so strengthen the growing reform party in the Council as to ensure the realisation of all the changes which have been asked for by the thinking portion of the constituency of Fellows.

THE INTERNATIONAL CONGRESS OF THE RED CROSS.

THE sitting of the 25th ult. was occupied with important business. After the Commission charged to study the question as to how far the Red Cross societies could intervene in distant wars had been nominated, a discussion arose on the demand of M. Oom (representing Russia) that Customs House examinations and dues should be suspended in favour of the *matériel* of the Red Cross, and also that the *personnel* of the societies should be conveyed by the railways free of cost. The Marchese Vitelleschi contended that so far as Italy was concerned her customs houses have relaxed their rules in the case of Red Cross goods, and also that her railways contemplate the conveyance of the *personnel* at reduced fares. M. Ziegler (Switzerland) maintained that the exemption from Customs dues was too large a question for the Red Cross Congress to decide *per se*, and that the Swiss railways, belonging as they did to private companies, could be used gratuitously by the *personnel* only after the consent of the companies had been obtained. The discussion closed with an approval of the demands formulated in the name of Russia by M. Oom.

The next discussion turned on the question as to the intervention of the Red Cross at military manœuvres in time of peace, with a view to disciplining its *personnel* and testing its resources, so as to avoid the *contretemps* it ex-

perienced in the late wars. The affirmative side was maintained by the Hungarian delegates, the negative by the German, French, Dutch, and (in part) by the Italian. Herr Criegern (Saxony) held that in Germany the Red Cross will never be made to serve in the first line—that is, in the field of battle; it will be called into activity only after the battle is at an end. Herr Knesebeck (Germany) supported this affirmation, and added that at the German manœuvres, to avoid grave embarrassment to the military authorities, not even the Army Medical Service was allowed to intervene. Eventually the following motion was introduced and carried: "The Fifth International Congress expresses the desire that a commission should endeavour to ascertain in what measure the Red Cross Societies may be put in a position to profit by the autumn manœuvres for the instruction of their *personnel*."

Other resolutions relating to the discipline of the *personnel* came up, the most important of which, as tabulated by Herr Knesebeck, were approved. These last ran as follows: "1. It is among the principal duties of the Red Cross Societies to prepare a numerous body of attendants on the wounded which shall be as well trained and efficient as possible. 2. This duty resolves itself into two parts: (*a*) instruction of a *personnel* having the qualities, moral and physical, required for hospital service; (*b*) instruction of the said *personnel* having similar qualifications for the transport of the wounded. 3. The hospital instruction shall comprise also the principal functions of transport of the wounded. 4. The examination of the results obtained shall rest with the military authorities. 5. And lastly, it is desirable to enhance the utility of the *personnel* of the organisations created *ad hoc* even in time of peace."

On the 26th the following proposal of M. De Martens (Russia) was, after an animated discussion, approved:—"Considering that the perfecting of lethal arms progresses every day, considering that the number of victims in future wars will certainly increase, the Fifth International Congress of the Red Cross recommends to the earnest consideration of all the associations the absolute necessity of profiting by every means possible, so as to diffuse the propaganda of the Red Cross in all classes of the populations, and to augment the resources required not only to mitigate the horrors of war, but also to alleviate public calamities." In this connexion M. De Martens pointed out the signal service rendered by the Russian associations of the Red Cross in the recent famine, in which they distributed relief to the amount of twenty-five million francs. After this the Congress proceeded to discuss the conditions of the open competition for perfecting the means of transporting, with efficacy and promptitude, the wounded from the battlefield to the first line of relief stations and thence to the temporary hospitals. Signor Tosi (Italy) and M. Leura (Belgium) proposed that the competitors should present a typical model of the means they suggest, on the scale of one-fourth the real size, with relative descriptive matter; and that both model and description should be on view in Rome from Aug. 15th to Sept. 15th, 1893, having been sent in to the adjudicating committee before June 30th of the same year. This proposal was approved. Further discussions took place on the "Sterilisation of the *matériel* of medication;" on the employment of the fund placed at the disposal of the Red Cross by the Empress Augusta; and on the propriety of introducing electric lighting for the nocturnal service of the Red Cross in removing the wounded from the battlefield; after which came up for reconsideration the intervention of the Red Cross in distant wars. Objections having been heard and dealt with, the conclusions of the majority of the commission were sustained, it being generally admitted that the military authorities of the belligerent powers will be in the best position to remove whatever inconveniences may arise from the operations of the Red Cross service on either side.

On the 27th (the last sitting of the Congress) M. Santos Ferreira (Portuguese delegate) proposed that "all the associations for relieving the wounded in war in relation with the international committee of Geneva should, in their rubric, assume the name of the Red Cross." This evoked some demur on the part of the French delegates; but, after a good deal of discussion, the following amendment, introduced by M. Odier (Switzerland), was carried: "That, in the countries where, under authorisation of the Government, more than one society exists with the name and object of the Red Cross, these societies may arrive at a fusion or federation which may admit of their entering the groups of all the national societies represented at the International Congresses." Reverting to a discussion of the previous day on the task of the Red Cross in view of the increasing efficacy of lethal arms and instruments of destruction—particularly as to explosives—M. Socin (Switzerland) indicated how the duty of the associations would become at once more difficult and more imperative. He concluded an interesting speech by moving the following resolution: "The fifth Congress renders full justice to the ideas inspiring the proposal of MM. Mundy, Socin, Furley, De Thomsen, and De Montagnac, that the associations should take special account in their preparations of the effects of the new arms and projectiles of warfare; but that, not believing itself sufficiently competent at this stage for the special treatment of the question, the Congress remits it to the consideration of all the central committees, and proposes that these should combine at the next general Congress in a report embodying their unanimous conclusions." This was approved, after which, on the motion of M. Leura (Belgium), it was agreed to confide to the Geneva committee, in accord with the other central committees, the task of fixing the seat of the next (the sixth) International Congress. This also was carried, and the President, Count della Somaglia, wound up the proceedings in a felicitous address. "Let me conclude," he said, "by expressing a wish very near my heart that the banner which I see in the midst of us may ever wave in this atmosphere of friendship and concord, and that our association of the Red Cross shall henceforth be nothing more than a brotherly reunion of unemployed (*disoccupati*)!" Compliments and congratulations between the delegates of the powers represented ensued, after which the Minister of War (Signor Pelloux) declared the Congress closed.

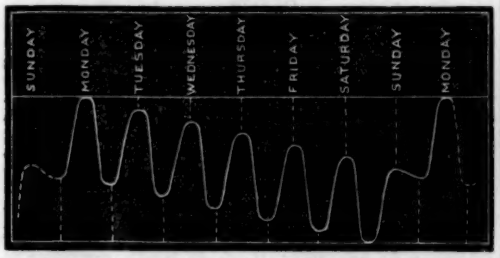
By universal admission this has been from first to last a most effective and harmonious gathering, fraught with important results which will make themselves felt in a long series of its successors. Its accessory features were also of the most gratifying description. Nothing could have been more brilliant than the royal banquet at the Quirinal Palace, unless, perhaps, the joyous excursion to Tivoli, where a highly satisfactory demonstration of a mountain ambulance in working was followed at the Villa d'Este by a great symposium, made memorable not only by the matchless beauty of the surroundings, but by the truly fraternal spirit which inspired the representatives of so many and such diverse nationalities.

THE PHYSIOLOGY OF LABOUR.

IN view of the recent May Day demonstration in support of "an eight hours day," it may be interesting to recall the experiments by which Pettenkofer and Voit attempted to ascertain what amount of work a healthy labourer could accomplish without injury to his health. They constructed a chamber in glass which was hermetically closed. Inside they placed a wheel to which was attached a chain. By turning the wheel the chain raised a weight of 25 kilogrammes. A healthy vigorous labourer was put inside this glass room; and, deducting the time required for meals, he was made to turn the wheel for nine hours a day. This was considered equivalent to hard physical work. The workman was carefully weighed before and after the experiment, the food supplied to him was likewise weighed and analysed. Very great care was taken to make this glass room absolutely air tight. No air could get in or out excepting through the air inlet and the air outlet. Thus it was possible to analyse the air as it went in and as it came out. Pettenkofer was therefore able to ascertain that during the nine hours' work the labourer had expended in the form of carbonic acid 192 grammes of oxygen more than he had been able to inhale during that time. To cover this deficit, it was calculated that the workman must have expended 20 per cent. of the provision of oxygen stored in his system. Of course this deficit was to some extent compensated by the night's repose; but, nevertheless, the balance was not re-established. During the night he naturally absorbed more oxygen than he utilised. But as the respiratory organs work more slowly at night the process of recuperation was not sufficiently prolonged. Both Pettenkofer and Voit came to the con-

clusion that a night's rest was not sufficient to re-establish the normal condition after a day of very fatiguing toil. They were of opinion that the deficit might be equal to 10 per cent., and in some cases 20 per cent., of the total stock of energy, and this in spite of the restorative effect of a good night's rest. It was the Sunday rest that alone could enable the body to take up the oxygen lost during the week's toil. Dr. Hoegler of Bâle published on this question a diagram showing the daily loss and gain throughout the week. It will be noticed how the line dips

Dr. Hoegler's diagram, showing the recuperative effect of weekly rest.



The top of the wave represents the vitality acquired after the night's rest, and the bottom of the line the vitality lost after the day's work.

down for the working hours of the day and rises again at night, but it does not reach its starting point, so that by Saturday the line is very low indeed. On Saturday night it reascends to a point a little below the level of Friday night. But on Sunday, as it hardly descends at all, a similar rise on Sunday night brings it up to about the same level as that at which the start was made on the previous Monday. These experiments, though extremely interesting and suggestive, must only be taken as an approximate indication of the effects of hard work. Where the atmosphere is vitiated by gas, poisonous dust, insufficient ventilation, the results must be much worse than those found in the sort of model existence led by the workman who was imprisoned in a glass room by Professor Pettenkofer. On the other hand, perhaps the workman in the glass room did more muscular work than others who toil in unwholesome factories or workshops. What can, however, be said without fear of contradiction, is that there is a distinct limit to the human power of physical endurance, and that this limit can be exceeded in nine hours' work, though performed by a thoroughly healthy worker. Therefore, Pettenkofer's experiments would lead us to conclude that eight hours' hard muscular work is quite as much as may be safely undertaken even by the strong and healthy.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6547 births and 4057 deaths were registered during the week ending April 30th. The annual rate of mortality in these towns, which had been 20·9 and 21·8 per 1000 in the preceding two weeks, declined again last week to 20·8. In London the rate was 19·8 per 1000, while it averaged 21·5 in the thirty-two provincial towns. The lowest rates in these towns were 9·9 in Brighton, 10·8 in Croydon, 11·8 in Portsmouth, and 15·5 in Nottingham; the highest rates were 24·9 in Birmingham, 26·3 in Manchester, 27·3 in Birkenhead, and 27·5 in Liverpool. The 4057 deaths included 527 which were referred to the principal zymotic diseases, against numbers increasing from 428 to 541 in the preceding four weeks; of these, 242 resulted from measles, 154 from whooping-cough, 41 from scarlet fever, 36 from diarrhœa, 33 from diphtheria, 18 from "fever" (principally enteric), and 3 from small-pox. No fatal case of any of these diseases occurred last week in Croydon or in Plymouth; in the other towns they caused the lowest rates in Brighton, Norwich, Wolverhampton, and Gateshead, and the highest rates in Birkenhead, Liverpool, Preston, and Sunderland. The greatest mortality from measles occurred in Manchester, Sheffield, London, Birmingham, Liverpool, Birkenhead, and Leicester; from scarlet fever in Cardiff; from whooping-cough in Derby, Hull, Preston, Salford, and Sunderland; and from diarrhœa in Burnley. The mortality from "fever" showed no marked excess in any of the thirty-three large towns. The 33 deaths from diphtheria included 17 in London, 3 in Portsmouth, and 2 each in West Ham, Birmingham, Liverpool, and Manchester. Two fatal cases of small-pox were registered in London, and one in Liverpool, but not one in any other of the thirty-three towns; 49 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 12 in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1408, against 1296 and 1400 on the preceding two Saturdays; 177 new cases were admitted during the week, against 146 and 219 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 348 and 389 in the preceding two weeks, declined to 306 last week, and were 78 below the corrected average. The causes of 77, or 1·9 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bradford, Sunderland, Newcastle-upon-Tyne, and in six other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 24·1 to 22·3 per 1000 in the preceding three weeks, further fell to 21·3 during the week ending April 30th, but exceeded by 0·5 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·4 in Leith and 15·5 in Perth to 21·4 in Edinburgh and 23·8 in Glasgow. The 593 deaths in these towns included 26 which were referred to whooping-cough, 18 to measles, 14 to diarrhœa, 4 to scarlet fever, 4 to diphtheria, 4 to "fever," and not one to small-pox. In all, 70 deaths resulted from these principal zymotic diseases, against 73 and 63 in the preceding two weeks. These 70 deaths were equal to an annual rate of 2·5 per 1000, which was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had declined from 30 to 22 in the preceding three weeks, increased to 26 last week, of which 16 occurred in Glasgow and 4 in Paisley. The deaths referred to measles, which had been 18 and 15 in the previous three weeks, rose again to 18 last week, of which 17 occurred in Glasgow. The 14 fatal cases of diarrhœa were within 3 of the high number in the preceding week, and included 9 in Glasgow. The deaths from diphtheria, which had been 10 and 6 in the previous two weeks, further declined to 4 last week, of which 2 occurred in Glasgow, where 3 of the 4 fatal cases of scarlet fever were also recorded. The deaths referred to diseases of the respiratory organs in these towns, which had been 130 and 163 in the preceding two weeks, declined again last week to 139, and were 7 below the number in the corresponding week of last year. The causes of 47, or nearly 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 30·6 and 35·8 per 1000 in the preceding two weeks, further rose to 43·9 during the week ending April 30th. During the first four weeks of the current quarter the death-rate in the city averaged 35·8 per 1000, the rate for the same period being 20·6 in London and 20·1 in Edinburgh. The 294 deaths in Dublin during the week under notice showed an increase of 54 upon the number in the preceding week, and included 20 which were referred to measles, 11 to whooping-cough, 1 to diphtheria, 1 to "fever," 1 to diarrhœa, and not one either to small-pox or scarlet fever. In all, 34 deaths resulted from these principal zymotic diseases, equal to an annual rate of 5·1 per 1000, the zymotic death-rate during the same period being 3·3 in London and 21·5 in Edinburgh. The fatal cases of measles, which had

been 14 and 33 in the preceding two weeks, declined again to 20 last week. The deaths referred to whooping-cough, which had increased in the previous three weeks from 3 to 10, further rose to 11 last week. One fatal case of "fever" was recorded during the week under notice, against 6 and 1 in the previous two weeks. The 294 deaths registered in Dublin last week included 26 of infants under one year of age, and 79 of persons aged upwards of sixty years; the deaths of infants showed a decline, while those of elderly persons considerably exceeded the number recorded in any recent week. Six inquest cases and 7 deaths from violence were registered; and as many as 123, or more than 40 per cent., of the deaths occurred in public institutions. The causes of 15, or more than 5 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

THE PROPOSALS OF LORD WANTAGE'S COMMITTEE.

A PARLIAMENTARY paper has been issued from the War Office showing the estimated cost to the United Kingdom and to India of carrying out the recommendations of the Committee on Terms and Conditions of Service in the Army. Without going into the subject of the total estimated cost of all the proposals, which amounts to a large sum, we may say that to free the soldier from compulsory stoppages not due to negligence or misconduct—e.g., hospital stoppages, barrack damages, tailors' and shoemakers' bills, and taking these as amounting on an average to $\frac{3}{4}d.$ a day, the extra cost on present establishments would be about—British, £142,000; Indian, £75,000. Giving each soldier throughout the Army 3*d.* a day as messing allowance, the extra cost on present establishments would be—British, £667,200; Indian, £319,000. There seems to be no doubt that the present condition of the Army, as set forth in the voluminous evidence published in connexion with the Report of Lord Wantage's Committee, will be the subject of a sharp debate later on. There does not appear to be any general disinclination to amend and improve the condition of the rank and file provided it can be done by a saving effected in the expenditure in other directions, such as a reduction in the numbers of the higher ranks. We are glad to notice that Dr. Farquharson has called the attention of the Secretary for War to the condition of St. George's Barracks and the absence of proper provision for the examination of recruits. The inconvenience and discomfort of the place can only have a deterrent effect on recruiting.

It may interest officers of the Army Medical Staff engaged in the medical inspection of recruits to know that a Royal Warrant has been issued providing for civilians acting as recruiting agents, and giving them the same awards as are granted for military recruiters.

Deputy-Inspector-General of Hospitals and Fleets, James Lilburne, R.N., M.D., F.R.C.S. Ed., died on the 23rd ult., at Duncrievie House, Glenfarg, Perthshire.

Surgeon-Colonel Allan, Medical Staff, has been appointed to the Administrative Charge of the Rawalpindi District.

INDIAN MEDICAL SERVICE. — Surgeon-Lieutenant-Colonel Lethbridge's (C.S.I.) services have been placed at the disposal of the Government of India. This officer has been acting upwards of fourteen years as Inspector-General of Gaols, and has introduced great improvements in gaol administration. The Lieutenant-Governor, in an official notification published in the *Calcutta Gazette*, expresses the appreciation in which the merits and services of this officer are held.

The pitiable condition of the native followers of the army in connexion with the late operations in Burma has very properly been the subject of recent comment, *apropos* of some statements in an address given by Deputy-Surgeon-Colonel Sibthorpe, Indian Medical Service. It is alleged that out of nearly 6000 sick followers only 400 recovered sufficiently to return to their duties in the field. As everyone knows, these nations are of essential use in Indian warfare. They are usually very hard worked, badly fed, and insufficiently clad, and occasionally they escape medical inspection altogether, or insufficient care is bestowed in rejecting those unfitted for work in the field. The hardship and suffering these unfortunate people undergo during a campaign entitle them to every consideration. It is to be hoped that the Indian Government will take some steps to guard in future against any similar amount of sickness and loss of life.

ARMY MEDICAL STAFF. — Surgeon-Captain H. R. O. Cross, from the Grenadier Guards, to be Surgeon-Major, in succession to Brigade-Surgeon-Lieutenant-Colonel A. B. R. Myers, retired (dated May 4th, 1892). — Surgeon-Major George Blake Hickson retires from the Service, receiving a gratuity (dated May 4th, 1892).—Surgeon-Captain R. S. F. Henderson has been ordered to Woolwich for duty; Surgeon-Captain G. Wade has been posted to Devonport; Surgeon-Colonel W. Collis has been transferred from Cork to Dublin; Surgeon-Lieutenant-Colonel J. G. Williamson, from Singapore to Gosport; Surgeon-Lieutenant-Colonel R. Drury, from Curragh to Dublin; Surgeon-Majors T. J. Gallwey, Hounslow to Egyptian Army; C. K. Powell, Madras to Cork; R. T. Beamish, Bengal to Dublin; T. M. Corker, Cork to Bombay; S. J. Flood, Belfast to Sierra Leone; J. G. Harwood, Portsmouth to Bengal; Surgeon-Captains T. Archer, Dover to Bermuda; R. C. Johnston, Bengal to Chatham; S. H. Creagh, Aldershot to Bermuda; J. R. Stuart, Warley to Hong-Kong; H. J. Wyatt, Dublin to Bombay; J. R. Mallins, Home District to Bengal; S. Powell, Bengal to Grenadier Guards; R. G. Thompson, Bombay to Sheerness; R. H. Hall, Bombay to Colchester; P. B. Skerrett, Bengal to Castlebar; J. J. C. Watson, Singapore to Aldershot; H. E. H. Smith, Singapore to Portsmouth.—Surgeon-Major J. E. Nicholson, who sailed on the 14th ult. for Hong-Kong in the P. and O. ss. *Oriental*, was entertained by the Principal Medical Officer, Devonport, and his brother officers at a farewell dinner given in his honour at the Royal Hotel, Plymouth.—Surgeon-Captain M. L. Hearn, doing duty in the Secunderabad District, has been posted to the Station Hospital, Bangalore; Surgeon-Colonel F. W. Wade has been placed on the Administrative Medical Staff of the Bengal Army.

MILITIA MEDICAL STAFF.—Surgeon-Lieutenant-Colonel J. E. Thornburn, 3rd Battalion, the Border Regiment, resigns his commission; he is also permitted to retain his rank, and to wear the prescribed uniform on his retirement (dated May 4th, 1892).

YEOMANRY CAVALRY.—Royal 1st Devon: Surgeon-Lieutenant F. Morgan to be Surgeon-Captain (dated May 4th, 1892).

NAVAL MEDICAL SERVICE.—Staff Surgeons: Arthur W. May to the Royal Marine Depôt, Walmer, and William M. Lory to the *Volage* (dated April 29th, 1892); Surgeon Geo. Edmonds to the *Abyssinia* (dated June 1st, 1892).

VOLUNTEER CORPS.—*Rifle:* William George Creswell, Gent., to be Surgeon-Lieutenant (dated May 4th, 1892).—2nd Volunteer Battalion, the Worcestershire Regiment: Surgeon-Captain T. E. Underhill to be Surgeon-Major (dated May 4th, 1892).—1st Volunteer Battalion, the East Lancashire Regiment: John Michael Harding Martin, M.D., to be Surgeon-Lieutenant (dated May 4th, 1892).—13th Middlesex (Queen's Westminster): Surgeon-Captain H. A. Des Vœux resigns his commission (dated May 4th, 1892).

INFANTRY VOLUNTEER BRIGADE. — East Yorkshire Brigade: Surgeon-Major J. Blackburne, 2nd Volunteer Battalion, the York and Lancaster Regiment, to be Brigade-Surgeon-Lieutenant-Colonel (dated May 4th, 1892).

FUNERAL REFORM.—As an indication of the increasing attention paid to matters of funeral reform, it is satisfactory to note that at the obsequies of Sir James Allport the mourners, by special request of the deceased, did not uncover their heads beside the grave.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—The next quarterly meeting of this Association will be held at Bethlem Hospital, London, on Thursday, May 19th, at 4.30 P.M. On that occasion Dr. Savage will read a paper on Influenza and the Neuroses. Mr. Beadles will read a paper on Gall-stones in the Insane. Members will dine together after the meeting at the Café Royal, Regent-street, at 6.30 P.M. The dissertations for the bronze medal and prize must be sent to the president not later than May 30th. The examination for the Gaskell Prize will take place in July.

Correspondence.

"Audi alteram partem."

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—I note that the committee of the Association of Fellows has again done me the honour of asking me to stand as a candidate at the next election in July. On the occasions when I have been a candidate in past years I have had the requirements of the Fellows as the chief part of my programme, but I have always declared that the interests of the Members have largely entered into my reasons for wishing to obtain a seat on the Council. The recent behaviour of the committee of the Association of Members towards its two secretaries, and the solicitor who has so ably conducted their action (Steele *v.* Savory), has made me doubt the earnestness and wisdom of the latter Association so thoroughly that I have no longer any reason sufficient to induce me to make the sacrifice of personal comfort and professional income which a seat on the Council of the College would involve. Therefore I shall not offer myself again in July. I am, Sirs, yours faithfully,

May 4th, 1892. LAWSON TAIT.

"CURE OF STRICTURE OF THE URETHRA BY MEANS OF PHYSIOLOGICAL REST."

To the Editors of THE LANCET.

SIRS,—I regret that, owing to press of work, I should have overlooked in last week's issue Mr. Burghard's most interesting comments upon some cases of mine that were published in THE LANCET a short time ago. That organic stricture of the urethra, even when it is of long standing, can be permanently cured by external urethrotomy must be admitted, in spite of the authority of the late Mr. Berkeley Hill. Mr. Burghard's cases are, it is true, of very short duration—the longest was under two years (two of mine were eighteen and twenty-six years respectively; Bickersteth's was eighteen, and one of Syme's was thirteen); but all such evidence is of value, and this permanent cure must be attributed in very great measure, if not entirely, to prolonged physiological rest. Whether perineal drainage alone can effect the same result depends of course upon the pathological anatomy of the stricture in question; but in those instances in which the mucous membrane can be dissected off and unfolded its full width, and in which, therefore, the narrowing must be caused by the accumulation and condensation of inflammatory lymph in the submucous and peri-urethral tissues, there can be little doubt that it would be equally efficacious. I do not think much is gained by comparing a stricture of the urethra to the perforation left in the soft palate after an unsuccessful operation. I cannot see a single point in common. I do not of course advocate the adoption of perineal drainage instead of internal urethrotomy and the other well-known measures; such a course would be absurd. I merely point out that when it is advisable for other reasons, it has upon some strictures at least a most beneficial effect, causing them almost to disappear of themselves, and that this can only be attributed to the fact that it places them in a condition of complete physiological rest. I regret that Mr. Burghard's case should have relapsed so soon, but I never meant to imply that perineal drainage could be successful in every case; it could never, for example, cause the absorption of a urethral cicatrix. I am, Sirs, yours faithfully,

Wimpole-street, April 28th, 1892. C. MANSELL MOULLIN.

"OPERATION FOR SPASMODIC TORTICOLLIS."

To the Editors of THE LANCET.

SIRS,—Notwithstanding the reclamation of Mr. Noble Smith, which appeared in THE LANCET of April 30th last, I still adhere to the conviction that, as a rule, surgical operations for the relief of neurotic affections should not be performed, save in cases of strict necessity and as a last resource, and unless commended to us by "the true measure of desert, success." The object of my letter was to show that so long as the simple yet effective remedy adopted by Dr. Morton Prince had not been tried, that emergency had not arisen, and who will say that anything approaching the average success that attends ordinary surgical operations has followed the handiwork of the neurosectomists? The lengthened immunity from suffering claimed by Mr. Noble Smith for two of his patients is creditable to him, and I trust that it may long continue; but in the words of Dr. Goodhart, "if the pain return, what will he do in the end thereof?" Mr. Noble Smith's suggestion that the case related by Dr. Morton Prince was a neurosis simulating wry-neck was a mere assumption; the graphic description of the patient's suffering, her anæmia and debility, and the suspicion of the existence of caries of the cervical vertebræ, should satisfy an unprejudiced mind of the gravity of the case. It is evident that Mr. Noble Smith has not perused my papers in THE LANCET of July 12th and Dec. 6th, 1884, from which Dr. Morton Prince drew his inspiration, otherwise he would scarcely have endeavoured to belittle the importance of blistering over that limited but important region covered by the fourth and fifth dorsal vertebræ. *Apropos* of wry-neck, I may be permitted to relate the particulars of a recent case. On Wednesday, April 27th last, I was called to visit a patient. On the previous Saturday she was exposed, while lightly clad, to a cutting east wind. The result was a wry-neck in a most severe form. She suffered from continuous pain shooting down the shoulders and back, aggravated by any attempt to hold her head erect. She had not been able to lie down for the previous three nights, being compelled to sit up in bed supported by pillows. Finding that the fourth and fifth dorsal vertebræ were very painful on pressure, I applied over them the liquor epispasticus. Next day all pain had gone, neck still a little stiff; on the succeeding day full relief was experienced, and I found her attending to her ordinary house duties. It would appear, then, that if torticollis of recent date may be suppressed by a simple remedy, the necessity for a heroic operation at the end of sixteen years need not arise. I am, Sirs, yours faithfully,

ALEXANDER HARKIN, M.D.Aber., F.R.C.S.Eng.

Belfast, May 1st, 1892.

SMALL-POX TRAMPS: WHO IS RESPONSIBLE?

To the Editors of THE LANCET.

SIRS,—The case of this kind which has recently occurred in this town, as your readers know, has given rise to much squabbling which can be but of local interest; but there are features in it which must be of some general interest, if only that they should not form a precedent in public health administration to other sanitary authorities. The mayor, in his letter to you, has only quoted extracts from the infirmary chairman's letter to the medical officer of health. He has omitted to quote, "it is obvious that the man should be at once removed from the infirmary, where infectious cases are not admitted"; and "it is desirable that you should take immediate steps to deal with the case." The man appeared as a casualty in the out-patient waiting-room, brought no subscriber's recommendation, no guarantee for maintenance or removal charges, and no application was made by the sanitary authority to the "superintending body of such hospital," under Sec. 124 of the Public Health Act, for "consent" to his admission into the infirmary. In these days of enlightenment it needs no argument to show that a general infirmary with a large out-patient department is no proper place for the admission of small-pox cases or of any other infectious diseases. The so-called "fever wards" are of fifty years ago, and hardly now proper places for the adequate isolation of any infectious case which might break out in the wards of the infirmary. The word "inmate" upon the ordinary notification certificate was perhaps an unfortunate one: the man's belongings were at the common lodging-house where he had slept the previous night. The sanitary authority, however, appear to show more concern at that word than at the other—small-pox—upon the certificate. One can hardly justify the existence of sanitary authorities if it is not to use their best endeavours to protect their districts, and the inhabitants, from infection of this kind. Such certainly hitherto have generally been considered amongst the chief of their responsibilities; and the fact of a hospital for infectious diseases being available or not in no way affects these responsibilities.

The absence of an available infectious hospital only increases the difficulties of administration. To a certain extent there is reason in what the Mayor says: "that the duties of a sanitary authority, under circumstances of this kind, are most clearly defined by law"; and afterwards that he should ask you "by what authority or Act of Parliament they should have been guided." As a matter of fact, I believe that the local authority exceeded what is defined by "shall," and did what was optional and permissive—such as under Sec. 121 of the Public Health Act. They "*may* direct the destruction of bedding, clothing, &c.," which the local authority did.

This permissive word "may" which runs through the Public Health Act, and which is applied to the adoption of this Act, such as that of notification, infectious diseases prevention, &c., is the stumbling-block to healthy sanitary organisation and public health administration. It culminated here in the first instance in the local authority repudiating their responsibilities, in their endeavour to palm off their responsibilities on to one of the charitable institutions of the district. The moral to be drawn from this case is that what is now permissive in Public Health Acts and legislation should henceforth be made compulsory; and that a closer supervision should be exercised over local authorities, central in character, from the Local Government Board and through country medical officers of health, to secure adequate and uniform administration.

I am, Sirs, yours truly,

J. LLOYD-ROBERTS, M.B., D.P.H.,
Hon. Medical Officer, Denbighshire General Infirmary.

May 2nd, 1892.

*** We have expressed our views on this matter elsewhere.—ED. L.

THE VOLUNTEER MEDICAL STAFF.

To the Editors of THE LANCET.

SIRS,—I am directed by the Council of the Volunteer Medical Association to forward to you the enclosed copy of a letter sent to the Secretary of State for War, and to ask if you will publish it for the information of volunteer medical officers, and give the Council your valuable assistance in forwarding the views therein expressed.—I am, Sirs, yours faithfully,

J. EDWARD SQUIRE, M.D., Hon. Sec.,
Headquarters, London, May 4th, 1892. Surg.-Capt. V.M.S.

[COPY.]

Headquarters, 101, Great Russell-street, Bedford-square, W.C., April 21st, 1892.

SIR,—I have the honour, by direction of the Council of the Volunteer Medical Association, to inform you that their attention has been drawn to your reply of the 4th inst. in the House of Commons to a question of Col. Henry Eyre, chairman of the Departmental Committee of the War Office, which sat in 1888 to consider the medical organisation of the volunteer force, asking if it was your intention to give effect to the recommendation of that committee as follows:—"Paragraph 42. It came out in evidence that the medical officers of the volunteer force wished to be placed on precisely the same footing as other officers of the volunteers regarding the distribution of honours and rewards. We submit this to your favourable consideration."

You are reported to have stated that volunteer medical officers, if employed on active service, would be placed on the same footing as regards honours and rewards as medical officers of the regular army, but that, with the exception of rewards for active service, the only honours open to volunteer officers were those given to officers in command of regiments.

I am directed to respectfully draw your attention to the following points:—

1. That the report of the above-mentioned Departmental Committee was approved and adopted by you, and that all its recommendations have been carried out, with the exception of that contained in paragraph 42.

2. That the point of comparison drawn in the recommendation of the committee is not between the medical officers of the volunteer force and those of the Army Medical Staff, but between the medical officers of the volunteer force and the combatant officers of the same service.

To the commanding officers of the volunteer force are open such rewards as K.C.B., C.B. (both in the civil department), and A.D.C. to Her Majesty, and thus junior combatant officers have some incentive to remain with their corps in the hope of ultimately obtaining the command, and becoming eligible for such rewards; but medical officers have no such possibilities before them, and are thus obviously placed at a disadvantage.

3. If, however, a comparison be made with medical officers of the Army Medical Staff, the Council would submit that the inference to be drawn from your reply is that rewards are only open to such latter officers as a result of their being employed upon active service.

This, however, the Council would venture to remind you, is by no means the case, honours and rewards being given quite irrespective of such particular service.

The Council of the Volunteer Medical Association therefore respectfully submit the following propositions:—

1. That the medical officers of the volunteer force are at present at a disadvantage as compared with the combatant officers of the force in respect to the bestowal of honours and rewards for distinguished service.

2. That these disadvantages might be obviated by the bestowal of honours and rewards for long and efficient service similar to those given to members of the Army Medical Staff under like circumstances—e.g., Q.H.P., Q.H.S., &c.

The Council earnestly hope that you will be so good as to give the foregoing facts and suggestions your most favourable consideration.

I have the honour to be, Sir, your obedient servant,

J. EDWARD SQUIRE, M.D., Hon. Sec.,
Surgeon-Captain, Volunteer Medical Staff.

To the Right Hon. the Secretary of State for War, War Office.

CERTIFICATES OF REMOVAL TO HOSPITAL.

To the Editors of THE LANCET

SIRS,—The enclosed is of great importance to medical practitioners, and I should like an authoritative statement from you on the subject. Under the Infectious Disease (Notification) Act the fees allowed are 2*s.* 6*d.* for private and 1*s.* for public patients. Some time since every practitioner in this town received a book of forms as the one enclosed. I wrote to the medical officer of health asking what fee was payable for such certificates, and enclose his reply. The sanitary inspector, before making arrangements for removal of a patient, calls for this second certificate. Now, Sirs, can the sanitary authority compel a medical man to fill in this certificate? Is it to be expected that medical men should fill in this certificate for no remuneration? The fees for notification have been placed as low as possible, but if this second certificate must be signed the intrinsic value of the former will amount to the enormous sum of 1*s.* 3*d.* and 6*d.* I am, Sirs, yours truly,

Plymouth, May 1st, 1892. EDWARD G. DUTTON.

Medical Officer of Health Department,
Municipal Offices, Plymouth, April 9th, 1892.

DEAR SIR,—No fee is payable for signing the certificate of removal. It is for the purpose of protecting the sanitary authority. Having a certificate of a patient's fitness for removal from a medical man removes responsibility in the event of a patient dying on the way to hospital.

Yours faithfully,

Dr. Dutton. F. M. WILLIAMS.

*** There is no power authorising the sanitary authority to require any such certificate. If they want "protecting," and their own paid officers do not protect them, they should remunerate those who do so. How far such certificates may be filled in as a matter of courtesy is another matter.—ED. L.

THE CONGRESS OF INTERNAL MEDICINE AT BERLIN.

(FROM OUR OWN CORRESPONDENT.)

AT the forenoon sitting of the Congress of Internal Medicine, on April 22nd, Professor Rosenstein of Leyden spoke on Chronic Hepatitis. In Germany, he said, the opinion still prevailed that the two morbid conditions of the liver are only different stages of the same disease, and that the stage of enlargement precedes the other. Professor Stadelmann of Dorpat declared inadequate the reasons adduced for the opinion that hypertrophy and atrophy of the liver were different diseases. Among the causes which specially favour the latter condition he mentioned the copious consumption of alcohol, chronic lead-poisoning, syphilis, tuberculosis, and malaria, but maintained that there were many cases of which it was impossible to trace the cause. Nor were the causes of jaundice, one of the most characteristic symptoms in the hypertrophic stage, sufficiently cleared up. Professor von Frey of Leipsic reported the important fact, ascertained by experiments on animals, that the jaundice which follows the closing of the biliary passages leading from the liver did not supervene if the ductus thoracicus was ligatured. Dr. Israel of Berlin reported the results of his investigations on the secondary alterations in the organs of circulation when the action of the kidneys was insufficient. Dr. Krönig of Berlin gave an account of an injecting apparatus which he had constructed. Dr. Schmidt of Breslau showed microscopic preparations in which the characteristic formations of pulmonary asthma in the smaller bronchi were beautifully visible. Dr. Martins of Rostock

reported the results of a series of very careful chemical analyses, undertaken with a view to ascertaining the quantity and the manner of the appearance of the hydrochloric acid in the stomach in digestion. He stated that it is secreted in the stomach, uncombined, immediately on the entry of the food. Professor A. Fränkel of Berlin spoke on cancer of the costal pleura. Dr. Hoppe-Seyler of Kiel reported his investigations of the fermenting processes in the stomach, and of the gases developed by them under various conditions. Professor Unverricht of Dorpat discussed the manner of the occurrence of Cheyne-Stokes breathing under the influence of various poisons and morbid processes, and explained it as a symptom of cerebral collapse. The following three speakers treated of tuberculosis in connexion with the comparatively small number of cases in proportion to the enormous opportunities of infection, and arrived at the conclusion that far more people were infected than was known. In the greater number of cases the tubercle bacilli were rendered either permanently or temporarily harmless by the resistance of the tissues of the body. In the latter case they remained in the body as latent foci, which become active when the resisting power of the body diminished. Dr. Spengler of Davos reported the results of the treatment of pulmonary phthisis with tuberculin and tuberculocidin (tuberculin purified by Klebs) combined. Dr. Cornet of Berlin drew attention to mixed infections in pulmonary tuberculosis, and maintained that the dangerous feverish conditions which set in with rapid decay of the lung tissue in the course of otherwise slow pulmonary tuberculosis were not due to the tubercle bacillus alone, but to other bacteria also—streptococci, staphylococci, &c. The first speaker on the 23rd was Dr. Mannaberg. His discourse was on the subject of malaria, and he maintained that the semilunar micro-organism appearing in malignant cases were neither products of degeneration nor a definite species of disease germs, but cyst-formations produced by the fusion of two or four of the young micro-organisms in the red blood-discs, and generating new ones by sporulation. The Congress was closed by the chairman, Professor Kürschmann. Next year's Congress will meet at Wiesbaden.

Berlin, May 3rd.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The General Hospital.

THE election of a physician to fill the vacancy caused by the resignation of Dr. W. F. Wade took place on the 4th inst. The election committee consists of the committee of the hospital, *plus* fifty others chosen by ballot from the general body of subscribers. Eighty-two attended the meeting, which resulted in the election of Dr. T. S. Wilson. The numbers were: Dr. Wilson, 54; Dr. Foxwell, 16; and Dr. Short, 12.

Annual Meetings.

The present time of the year is the one usually chosen for the annual meetings of various hospitals in the city.

The annual meeting of the governors of the Skin and Lock Hospital took place on April 29th, under the presidency of Captain Grice Hutchinson. The report showed that the new cases treated during the past year (3692) had been more numerous than in any previous year. The attendances of patients numbered 24,832; the in-patient department had received 56 skin and 21 lock patients, and their average stay had been 42 days. The treasurer's statement showed a surplus of £915, increased from £626 at the end of 1890.

The annual meeting of the Ear and Throat Hospital was held on May 2nd, Lord Leigh in the chair. The forty-seventh report showed that the number of new cases was 1872—eighteen more than in 1890—the total number of cases registered for the year being 4117. The registration fees paid by the patients, upon which the hospital depends chiefly for its support, were 2249 in number, and produced the sum of £393 11*s.* 6*d.* The total number of attendances of out-patients was 13,031, and 109 cases were admitted as in-patients. The management account showed that the total receipts amounted to £816 3*s.* 4*d.*, and that there was a balance in hand of £28 4*s.* 5*d.*

At the Lying in Charity the annual meeting took place on April 27th. The chair was taken by Mr. J. D. Goodman. During the past year there had been two deaths of mothers out of 741 patients. The average number of deaths during the last ten years had been 1 in 400. The assistance of the honorary surgeon was called in twenty-one times. The number of children born alive was 725, and there were twelve deaths of children. The financial condition of the charity was recorded to be satisfactory, there being £18 in hand. The work is all extern, and done by midwives, who call upon the honorary surgeons in cases of difficulty.

The twenty-third annual meeting of the Midland Counties Idiot Asylum was held at Worcester on April 30th, the Mayor of Worcester being in the chair. The total number of patients resident during the year was 52; 3 had died, 2 were removed, and 7 new cases were admitted. The financial position was stated to be satisfactory, as there was no debt. The total income for the year amounted to £1777 15*s.* 1*d.*, and the gross expenditure, including depreciation of buildings and furniture, was £1753 12*s.* 7*d.* Special thanks were given to Lord Leigh, the president, for the constant interest he had taken in the welfare of the institution.

Deaths of Cyclists.

A young man aged nineteen suddenly expired while riding on a bicycle. Immediately before he remarked that he felt better that day than he had ever done. He had previously partaken of some "lemon and a dash." The doctor at the inquest expressed the opinion that death was due to violent exertion, particularly after taking a cold drink when the body was heated. In such a case it would have been of importance if a post-mortem examination had been made, and the cause of death accurately ascertained. So many young men exert themselves violently on the bicycle that the warning thus afforded would probably have acted as a guide to them in the pursuit of this pastime.

Birmingham, May 4th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Proposed Medical Officer for Durham County.

AT the last meeting of the Durham County Council the committee brought up a report recommending the appointment of a medical officer of health at a salary of £500 a year, with reasonable travelling expenses in addition, and that he should also hold a qualification in public health, reside in Durham, and devote his whole time to the duties of his office. The report was adopted, with the addition that the age should be limited to between twenty-five and forty-five years.

Lunacy in the County of Durham.

Dr. Smith, medical superintendent of the Durham County Asylum at Sedgefield, in his thirty-third annual report, states that up to December, 1891, 8116 patients, of whom 4346 were men and 3770 women, were admitted. Of these, 1416 men and 1116 women recovered, being at the rate of 32·5 per cent. men, and 44·3 per cent. women. Dr. Smith observes, as to these very large statistics, that the percentages of recoveries appear too small or less favourable than ought to be exhibited. The deaths give a total of 2827. A large number of patients, owing to want of accommodation, had to be transferred to and from other asylums. Dr. Smith says that the figures show broadly that a larger number of men than women die insane. This, he thinks, is almost entirely owing to the fact that a very large number of men labour under severe organic disease of the nervous system from hard living. He thinks that there is no increase in the spread of lunacy, and in support cites the following figures of the new or recent cases admitted, which were in 1860–61 1 in 3460 of population; 1870–71, 1 in 3480; 1880–81, 1 in 3309; 1890–91, 1 in 3452.

Fatality to a Westmoreland Coroner.

Mr. Thomas Wilson, Mayor of Appleby and coroner for the east and west wards of Westmoreland, was on Friday last killed by being thrown from his horse at Sedburgh, where he was on a visit.

Sunderland.

During the past week the sum of £500 has been given to the Sunderland Infirmary and £100 to the Monkwearmouth and Southwick Hospital under the will of the late Mr. R. T. Wilkinson of Sunderland. During the last few weeks

the export trade of Sunderland has been rapidly declining, owing to the strike, in the matter of coal from thousands to hundreds of tons; but for the week ending last Thursday matters reached their worst, when not a single ton of coal was exported, an occurrence which is probably unparalleled in the history of the port. The annual report of the Northumberland and Durham Miners' Permanent Relief Fund has been issued, in which it is stated that there have been 167 deaths from accidents, which is nearly 1·5 per 1000 members, being a small increase on that of last year. Eleven of those on the Permanent Relief Fund amongst the deaths had been receiving relief for some years. It states that the present benefits cannot be kept up unless the payments are increased, and that no amount of care of the fund can make a sovereign worth more than twenty shillings. It is, moreover, unsatisfactory to learn from the same report that the present strike in the county of Durham is costing the fund about £2400 per fortnight.

Eston, Middlesbrough.

Reference was made at the last meeting of the Eston local board to the high mortality lately prevalent in the district, which the medical officer, Dr. Malcomson, attributed to the outbreak of measles in the district, to counteract which measures were being taken to close the schools in the affected district. Dr. Barry, it was reported, had approved of the proposed sanatorium, subject to a few alterations which had been suggested by him.

Dr. H. E. Armstrong on Infectious Diseases.

Dr. H. E. Armstrong gave a lecture on Saturday last (in continuation of the course) on "Infectious Diseases." There was a crowded audience. Mr. Alderman Winter, the chairman of the City Health Committee, presided. Dr. Armstrong dwelt very fully on the media by which infectious diseases might be conveyed. Of all foods he thought milk was the most subtle and most at fault in spreading infectious diseases. He also spoke of other modes of infection—viz., air, water, clothing, and direct contact.

Charitable and other Bequests.

Mrs. Mary Robinson, widow, late of Cockermouth, amongst other charitable bequests, left £100 each to the Carlisle Infirmary and the Carlisle Dispensary. — Miss Emily Sarah Wilson, late of Dalham Tower, whose will has been proved at Carlisle, left, amongst other charitable bequests, £100 to the Royal Asylum of St. Ann's Society, Redhill, Surrey.—The late Dr. Carlyle of Carlisle, whose will has been proved at Carlisle, the gross personalty being under £9000, left his collection of specimens of fungi to the Royal Herbarium Museum at Kew, and some works on fungi to the Carlisle Corporation Museum which is to be shortly formed.—It is freely rumoured in this city that the late Dr. Heath left a large sum of money for a specific purpose in connexion with the Newcastle College of Medicine of the University of Durham.

Newcastle-on-Tyne, May 4th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The Sanitary Condition of Peterhead.

AT a meeting of the Peterhead section of the Buchan Field Club recently Dr. Middleton delivered a lecture on Bacteria and Epidemics, in the course of which he referred to the apathy towards sanitation evinced in Peterhead. He thought Peterhead had a share of epidemics rather above the average, for which there were several reasons. Some of the houses were a disgrace to civilisation. There were dens of squalor, dirt, and misery, all retarding the health of the community. Again, in the summer fishing season they had a large increase in the population, some of them not very sanitary either in their persons or habits, and living under most insanitary conditions, overcrowded in dirty, unventilated garrets. Again, when they did have an outbreak of disease in Peterhead, so far as the authorities were concerned, it got leave to revel unrestrictedly. In fact, they lived and moved in Peterhead as if there had been no such thing as a science of public health, as if enactments for the preservation of health had never taken place, as if these things were altogether apart from them and their every-day concerns. They as a community were not so far in the rear of their neighbours in any intellectual pursuit. Why, then, should they so linger in a matter of such vital importance? Why should precious lives be imperilled? Or why should bodily and mental suffering be incurred that might have been prevented?

Insanitary Condition of Boddam.

Dr. Watt, medical officer of health for Aberdeenshire, in a verbal report to the Public Health Committee of the County Council on the sanitary condition of Boddam, strongly condemns the present state of affairs in the village. Hardly a year passed without an outbreak of scarlet fever, and there had been a number of outbreaks of typhoid fever within recent years. There were three causes for this: First, the fact that since 1873, when the drains were laid, not one of them had been flushed, and the manholes were cleaned only once in two years. In the next place, there was a very extraordinary deficiency in trapping; and, in the third place, there were five huge pits of offal which were situated most suitably for distributing their effluvia to the houses. The fishermen would be only too pleased to have the state of matters improved, even at a pecuniary loss. Stonehaven was an example of improved sanitation worth copying. Dr. Watt is hopeful of the result of the meeting of the committee of fishermen and of the County Council.

Aberdeen Royal Infirmary: Resignation of Dr. Ogston.

At a meeting of the directors of this infirmary on April 27th the formal announcement of Dr. Ogston's resignation of his post of surgeon was read; also communications embracing resolutions passed by the medical faculty of the University, by the meeting of medical men held in Dr. Ogilvie Will's house, and by mass meetings of medical students, all expressing their anxiety for Professor Ogston's withdrawal of his resignation. The board then received the deputation from the meeting of medical men—namely, Dr. Ogilvie Will, Dr. Henry Jackson, Mr. Alex. Profeit, and Dr. Alex. MacGregor. Dr. Will read the resolutions passed at the meeting of medical men (which were printed in THE LANCET a fortnight ago), and thought these were not at all overstated. He thought Dr. Ogston's position in the infirmary as a practical surgeon, as a scientific man, and as a clinical teacher could not be overestimated. Dr. Ogston was not a man of mere local celebrity, but a man of world-wide fame, and his attachment to the infirmary gave it a different status from what it would otherwise occupy. Dr. Jackson said that the directors should make every effort to get Dr. Ogston to reconsider his resignation. The loss of a surgeon who has made such a reputation for himself, and who was held in the highest esteem by his brethren throughout the country, would, said Dr. Jackson, seriously affect the popularity of the institution, and that would result in financial loss. If the popularity of the infirmary was to be maintained, they must have the very best men on the staff, and the directors ought to do all they possibly could to make it possible for Dr. Ogston to withdraw his resignation and resume his duties as senior surgeon. Mr. Profeit also strongly urged the directors to do their utmost to retain Dr. Ogston's services. Dr. MacGregor remarked that while it might be a matter of opinion whether the public would have the same confidence in the institution without Dr. Ogston, it was not a matter of opinion with the profession. It was a matter of fact that they could not have the same confidence in the hospital if Dr. Ogston resigned. The chairman of directors then said they heartily concurred in all the deputation had said, and the board unanimously adopted the following resolution:—"The directors of Aberdeen Royal Infirmary, fully recognising the eminent skill and high reputation of Professor Alexander Ogston, and the great value of his services to the hospital, have received with deep regret his resignation as senior surgeon. The directors sympathise most heartily in the efforts being made to induce Dr. Ogston to reconsider his decision to retire from infirmary duty, and they will be much gratified to find that these efforts prove successful."

Resident Assistants.

The following gentlemen have been appointed to fill the posts of resident assistants in the Royal Infirmary for the year beginning May 1st:—James Rush, M.A., M.B., C.M.; W. R. Pirie, M.A., M.B., C.M.; Duncan D. Macintosh, M.B., C.M.; and W. M Anderson, M.B., C.M.

May 4th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Surgeons.

AT a meeting of the Fellows, presided over by Mr. Croly, on Monday, May 2nd, Mr. F. Alcock Nixon was elected a member of council. He was opposed by Dr. Parefoy, the votes given being 90 and 38 respectively. The election for examiners usually takes place the first Monday in May, but may be deferred at the wish of the council, and this year it will be held on Friday, the 20th inst. There will be ten examiners appointed to examine for letters testimonial and Fellowship; three for the diploma in midwifery; four for the diploma in Public Health; six for the diploma in dentistry, and two to examine in general education. A meeting of the Fellows will be held on Saturday, June 4th, to receive the annual report of the council; and on the 6th prox. a meeting will take place, pursuant to the provisions of the charters, to elect a president, vice-president, council, and secretary for the ensuing year. Mr. Croly's term of office having expired, he retires, and will be succeeded in the presidency by Mr. Edward Hamilton, professor of surgery in the College schools, surgeon to his Excellency the Lord Lieutenant, and surgeon to Steevens' Hospital. Mr. Thornley Stoker, surgeon to the Richmond Hospital, it is confidently expected, will be elected vice-president without opposition, in the room of Mr. Carte, J.P.

Poisoning by Nitric Acid.

A fatal case of poisoning by nitric acid occurred last week in Dublin. A grocer named McNally swallowed a quantity of the acid—probably the strong acid—while partially intoxicated, on the morning of the 28th ult., and within a few minutes was removed to the Meath Hospital, where he died about ten hours afterwards. The post-mortem examination showed that the stomach was corroded and destroyed. The coroner's jury brought in a verdict that the deceased died from shock, consequent on drinking strong nitric acid, while under the influence of alcohol.

Coombe Lying-in Hospital.

The governors last week, on the nomination of the master, appointed Dr. George Cole-Baker assistant master to the hospital. He is a bachelor in medicine, surgery, and obstetrics of the University of Dublin.

May 3rd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Results of the Application of Lannelongue's Sclerogenic Treatment in Tuberculous Affections.

AT the French Surgical Congress M. Coudray furnished a highly interesting report on the results of the application of the new method of treating surgical tuberculous diseases devised by Professor Lannelongue. His report is founded upon sixty cases, including thirty-one of affections of the larger joints, nine of the lymphatic glands, six of the foot and fingers, and four of the spine. The results are stated to be excellent, recovery from the local lesion being the rule, and the propagation of the bacillus to distant parts being prevented through the formation of the sclerogenic barrier due to the chloride of zinc. What is the fate of the bacilli in their conflict with the new elements generated around the territory occupied by them? M. Coudray opines that they perish, or that, at any rate, their activity is paralysed. This opinion is based upon three microscopical examinations he has conducted on extirpated masses, and on the negative results of inoculations. M. Lannelongue explains the apparition of certain abscesses some time after the injection of the chloride of zinc solution by supposing that the bacillus colony is encapsuled temporarily. It is also possible that certain lesions may accidentally escape the action of the remedy. In a previous letter I wrote of the treatment of congenital dislocation of the hip-joint by Lannelongue's method. M. Coudray tells us that a little girl of three years, thus treated five months ago, has now began to walk, her lameness having diminished considerably. The femoral head now reaches during adductory and internal rotatory movements only to a point one centimetre above the line of Nélaton-Roser, instead of three centimetres, the point reached before treatment. M. Coudray has also essayed the method in the combating of such hopeless diseases as malignant tumours. Applied in three instances (two generalised malignant lymphadenomata and one cancer of the breast) the size of the growths seemed to be materially diminished and their development arrested. The diffusity is to circumscribe the infected lymphatic glands. MM. Ivesco of Paris, and Dubois of Cambrai cited cases of surgical tuberculosis cured by them by means of the sclerogenic method, the practice of which will, doubtless, in time diffuse itself all over the civilised world.

A New Medical Senator.

M. Labbé, the well-known Paris surgeon, has just been elected Republican senator of the Department of Orne. At the annual banquet of the *internes* of the Paris hospitals, held on the 23rd ult., under the presidency of the veteran dermatologist, Professor Hardy, that staunch defender of nursing (religious) sisters, Dr. Desprès, one of the deputies for the metropolis, deplored the fact that the vast majority of the substantially numerous medical phalanx forming part of the Lower House took no interest whatever in medicine and the welfare of its votaries. M. Labbé, will not assuredly, as a member of the Upper House, deserves to be classed in this category. With his distinguished fellow-Senator, Professor Cornil, he will, I make bold to assert, watch closely the interests of the body of which they are both such distinguished ornaments. It is a curious circumstance that M. Labbé succeeds a *confrère*, the late Dr. Libert, in the senatorial representation of the Orne constituency.

Paris, May 4th.

Obituary.

THOMAS BRAMAH DIPLOCK, M.D., M.R.C.S.

THE late Thomas Bramah Diplock was born at Hastings on May 14th, 1830. His father and mother died when he was a few months old, and his uncle, the late John Joseph Bramah, engineer, adopted him and brought him up. When he first started in life he took up engineering, at the wish of his uncle; but, always having had a great desire to belong to the medical profession, he gave up engineering, and was apprenticed as a medical pupil to the late Dr. Bennett of Shaftesbury. Afterwards he studied at St. George's Hospital, St. Mary's Hospital, and Mr. Lane's School of Anatomy. He obtained his M.R.C.S.Eng. in 1853, and M.D. St. Andrew's in 1856. He was then appointed house surgeon to the Lock Hospital, Harrow-road, and afterwards started the practice of medicine at Brompton, in partnership with the late Robert Sannemann, F.R.C.S., and continued in practice until just before he was elected coroner for Middlesex in 1868. In his election for the coronership he was opposed by the late Dr. Hardwick, but, after a close fight, was returned at the head of the poll. For nearly twenty-five years he carried out his duties as coroner without fear or favour, and gained the love and respect of all he came in contact with. When he was first attacked with cancer of the tongue he kept the knowledge that he was so afflicted to himself for nearly two years, until the disease had made such headway that he was obliged to tell his wife and family. He bore his sufferings with great fortitude and without a murmur, and passed peaceably away on April 29th, 1892, from hæmorrhage at the base of the tongue, leaving a widow, four sons, two daughters, and a large circle of friends to mourn their loss. Never was there a more devoted husband, a kinder father, or a more sincere friend. He was attended in his last illness by several medical friends, and his son, Mr. Leonard B. Diplock.

PROFESSOR WILHELM BRAUNE (LEIPSIC).

WE regret to announce the death of Dr. Wilhelm Braune, Professor of Anatomy in the University of Leipsic, who was perhaps the greatest authority on topographical anatomy of the present age, and whose "Atlas of Human Topo-

graphy," also published in a reduced form in 1874, and ably translated into English by the late Mr. Edward Bellamy—dealing as it does with frozen sections—is one of the most important works which have been published in that particular branch of the subject. His illness was of short duration. On Friday week he was in his laboratory, where he caught a chill, which prevented his attendance on the Saturday. Pneumonia gradually supervened, and he died on Friday, April 29th, in the sixty-first year of his age. Professor Braune was a man of fine presence and winning manners, and to the students of anatomy who studied at Leipsic his kindness was extreme and his courtesy was unfailing. He paid every consideration to the work of foreign students in his laboratory, and many of our own countrymen owe much to his wise advice and direction. At the time when his illness came upon him he was engaged in superintending the researches of Dr. Hughes, lecturer of anatomy in the Edinburgh Extra-mural School of Medicine, on the movements of the spinal column, a work in which he was specially interested. Even on his deathbed on Tuesday last he threw out several suggestions as to how the work should be completed. He was a scion of an ancient line of medical men; his father and his grandfather before him had devoted themselves to the healing art. He had also strong literary tastes, and was joint editor, with Professor His, of the *Archive of Anatomy*, published in Leipsic. He made many friends in England during his visit in 1881, when he attended the International Medical Congress.

GEORGE HOGARTH MAKINS, M.R.C.S., L.S.A.

MR. MAKINS died on April 12th. He was born in 1815, and his father, an official in the Treasury, died when his son was ten years of age. Mr. Makins' early tastes inclined to the study of chemistry, but the difficulties in the way of taking up this branch of science in those days were so great that his mother thought the nearest approach would be to apprentice him to a country medical man. He was therefore apprenticed to Mr. Norton of Uxbridge, afterwards entered as a student at King's College, London, and St. George's Hospital, and took his L.S.A. in 1839, becoming M.R.C.S. in 1840. Mr. Makins then being free to follow his own taste, took up the study of chemistry, and held successively the chair of Chemistry at the Aldersgate School of Medicine and the Middlesex Hospital. At this time he became specially interested in the metallurgy of the precious metals, and this eventually led to his starting an assayer's laboratory. As an assayer he enjoyed an unrivalled reputation, acting as referee on many occasions between the Bank of England and the Mint, and while employed in this way he thoroughly remodelled the whole process. During a period of twenty years he gave an annual course of twelve lectures on metallurgy at the Dental Hospital of London. When the Society of Apothecaries altered the relation of the Society to the Old United Stock-holders, Mr. Makins took an active part in the proceedings, and was shortly afterwards elected a member of the Court of Assistants, serving the office of master in 1889. His excellent business capacity and good judgment were of great service to the Society in a somewhat critical period of its history. Although not practising medicine, Mr. Makins took a hearty interest throughout his life in the education of medical students in chemistry, and he was known and beloved for his personal characteristics by a wide circle in the profession.

CHELSEA HOSPITAL FOR WOMEN.—Earl Cadogan, K.G., presided over the 21st annual meeting of this charity. The report showed that the annual subscriptions for the year were £1956 9*s.* 6*d.*, and the donations £782, while £600 had been received in bequests. It was stated that the festival dinner held in May brought in over £1000. The nursing staff had benefited, too, by a series of lectures given by the medical staff.—The convalescent home at St. Leonards, which was opened on June 3rd last, was said to be doing excellent service, and already, out of the nine wards, seven had been named by donors of £105 and upwards.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen, having conformed to the by-laws and regulations and passed the required examinations, were at the meeting of the College on April 28th admitted Licentiates:—

*Abbott, Fred. W., Charing-cross.
Agar, Morley Frederick, London.
Anderson, J. Buckle, St. Barthol.
Ansorge, Wm. John, St. Barthol.
Arathoon, Hilary C., St. Barthol.
Argyle, Stanley S., Melbourne.
Atkinson, Jackson A., St. Mary's.
Bakewell, R. Turle, Univ. Coll.
Barberi, José Ignacio, Liverpool.
*Barridge, William Robt. Morpott, St. Thomas's.
Bird, W. E. Frankish, London.
Birdwood, G. T., Camb. & Guy's.
Bligh, William, Guy's.
Bowring, Walter A., St. Thomas's.
Boyd, Alex. Brooke, St. Barthol.
Bromhall, Ernest, Birmingham.
Brown, Stanley M., Manchester.
Browning, George Dansey, Rennes and Westminster.
Bubb, William, St. Bartholomew's.
*Cade, H. Lowless, St. Thomas's.
Campbell, Arthur Minton, Oxford and St. Thomas's.
Carre-Smith, H. L., Charing-cross.
Colclough, William Frank, Guy's.
Croft, J. T. Herbert, St. Barthol.
Crossing, Augustus V., St. Mary's.
Cummings, H. Joseph, Toronto.
Daniel, R. Napier, St. Thomas's.
Davies, Gwilym C., St. Barthol.
Dow, W. Alexander, St. Barthol.
Easton, F. Edward, St. Mary's.
Elliott, Charles Caldwell, Guy's.
Emery, Arthur, Birmingham.
Evans, John Richard, Guy's.
Foster, Michael B., Charing-cross.
Frazer, Ernest Edward, Guy's.
Fuller, Chas. Arthur, St. Mary's.
Fullerton, A. Young, Univ. Coll.
Garman, John B., Birmingham.
German, Arthur Wm., Liverpool.
Gideon, G. Vernon M., St. Mary's.
Gilpin, Bernard B., King's Coll.
Gowring, B. W. N., St. Barthol.
Grant, Charles Wm., St. Barthol.
Greaves, Edward Harrison, Guy's.
Gross, Phineas, Leeds.
Hake, James, London.
Hanham, Leonard L., St. Barthol.
Harcourt, C. Harold, Birmingham.
Harper, Walter J., St. Thomas's.
Harris, Jas. Edward, St. Thomas's.
Harvey, Arthur George, Cambridge and Charing-cross.
Harvey, John, Liverpool.
Harvey, John Owen, St. Barthol.
Hatch, Herbert L., St. Mary's.
Heaton, A. Frederick, St. George's.
Hey, H. D., Durham & St. Mary's.
Hill, Ernest, Middlesex.
Hocken, James P., Charing-cross.
Hughes, E. Lucas, Univ. College.
Isaacs, E. Percival, St. Thomas's.
Jackson, R. Houlton, St. Barthol.
Jäger, Harold J., King's College.
James, Ernest W., King's College.
*Jones, H. Hepburn Averay, Lond.
Jones, H. J. Rutherford, London.
Kendall, Bernard Charles, Bristol.
Kendrick, George, Birmingham.
King, John Charles, Westminster
Landon, Ernest E. Balman, Guy's
Lattey, Arthur Jas., St. George's
Loveday, Wm. Dunmore, Guy's
MacGrath, E. John, S. George's.
Mackenzie, Kenneth M., London.
Makalua, M. Manuia, King's Coll.
March, Edward Gerald, Guy's.
Master, G., Camb. & St. Barthol.
May, Percival Marshall, Guy's.
Mellor, George Mullins, Leeds.
Mercer, W. Bracewell, Cambridge and St. Bartholomew's.
Morgan, Wm. Holmes, Middlesex.
Morice, C. G. Frederick, Guy's.
Morris, F. Temple, Univ. College.
Moseley, C. Kingdon, St. Barthol.
Motteram, H. P., Birmingham.
Noble, Frank Stanley, Univ. Coll.
Nunes, Herbert Fitz-Stephen, St. Mary's.
Olver, Thomas, King's College.
Orr, Walter Hood, St. Barthol.
Paling, A., Glasg. and Middlesex.
Palmer, Wm. M., Charing-cross.
Paton, R. McIver, Charing-cross.
Peake, George Arthur, Bristol.
Pickthorn, E. Butler, St. George's.
Pollock, John R. Russell, Guy's.
Pond, Francis A., St. Barthol.
Prada, Enrique, King's College.
Rayner, David Charles, Bristol.
Rayson, Herbert Knights, Guy's.
Read, Arthur Wm., St. George's.
Rivers, John H., St. Barthol.
Ryde, Cyril Alexander, London.
St. John, Alex. Story, Bristol.
Saffery, Frank Golder, Guy's.
*Scott, Thomas Graham, Guy's.
Senior, E. Westall, St. Thomas's.
Shearer, D. Francis, St. Thomas's.
Sheen, Alfred William, Guy's.
Sichel, G. T. Sylvester, Guy's.
Sims, David, St. Thomas's.
Smith, Abraham Arthur, Leeds.
Smith, Walter W., St. Barthol.
Stead, Dryden, Birmingham.
Stearn, Frederick Charles, Guy's.
Sworn, Ernest Andrew, Univ. Coll.
Thompson, Patrick O., St. Barthol.
Thyne, Jas. Andrew, Edinburgh.
Tibbetts, T. Major, Birmingham.
Tildesley, J. P., Birmingham.
Tostal, John H., St. Barthol.
Twynam, A. E. E., Univ. College.
Waithard, Robert Rudolf Max, Berlin, Würzburg, and Bernc.
Warneford, S. W. C., Birmingham.
Waters, G. W. B., Univ. College.
Watts, J. Alex. W., Manchester.
Wason, R. Llewhellin, Guy's.
Weir, A. Nesham, St. Barthol.
West, Henry William, London.
*Wetherall, P. Sim B., Univ. Coll.
Wheeler, C. Edwin, St. Barthol.
Wilks, S. Longmore Batterworth, Leeds.
Williamson, John, St. Barthol.
Wilson, A. Marius, St. Thomas's and Durham.
Wright, W. Charles, Manchester.

* Candidates who have not presented themselves under the regulations of the Examining Board.

UNIVERSITY OF DURHAM: FACULTY OF MEDICINE. At the Convocation held on April 30th the following candidates received the degrees indicated:—

Doctor in Medicine for Practitioners of Fifteen Years' Standing.—James Charlesworth, M.R.C.S., L.R.C.P. Lond., L.S.A.; Cautley Dawson, M.R.C.S., L.R.C.P. Lond.; William Donovan, L.R.C.P., L.R.C.S. Edin.; Stanley Augustine Gill, B.A. Dub., M.R.C.P. Lond.; Thomas Horne, L.R.C.P., L.R.C.S. Edin.; Frederick Daniell Miller, M.R.C.S., L.R.C.P. Lond., L.S.A.; Rees G. Price, L.R.C.P. Edin., L.F.P.S. Glasg.; William Henry Putsey, M.R.C.S., L.S.A.

Doctor in Medicine.—Andrew Paige Arnold, M.B., B.S. Durh., Wm. John Barleigh Robinson, M.B. Durh.; Charles Alfred Dalgliesh, M.B., B.S. Durh.; Charles John Evers, M.B. Durh., M.R.C.S., L.S.A.; Harry Fowler, M.B. Durh.; James Hindhaugh, M.B., B.S., L.S.Sc. Durh.; Ernest Beddoe Hulbert, M.B. Durh., M.R.C.S., L.R.C.P. Lond.; John F. Johns, M.B. Durh., M.R.C.S., L.R.C.P., D.P.H. Lond.; W. Lansdale, M.B. Durh., M.R.C.S., L.R.C.P. Lond., L.S.A.; Albert E. Martin, M.B. Durh., M.R.C.S., L.R.C.P. Lond.; John Worden Sandoe, M.B., B.S. Durh., M.R.C.S., L.R.C.P. Lond., L.S.A.

Master in Surgery.—Raymond Henry Shaw, M.B., B.S. Durh., College of Medicine, Newcastle-on-Tyne.

Bachelor in Medicine.—F. Burchett Rutter (Second Class Honours), London Hospital; James Alexander Wood Watts (Second Class Honours), M.R.C.S., L.R.C.P. Lond., Owens College; Duncan Jas. Caddy, Henry Augustus Collinson, Taylor Dixon, Frank Hawthorn, William Martin, B.A., Arthur Alexander Joseph McNabb, Edgar Mitchell, James Peacock, Colvin Barslem Smith, and R. Sterling, B.A., all of the College of Medicine, Newcastle-on-Tyne; Allan Gordon Russell Cameron, St. Mary's Hospital; Henry Arthur H. Claridge, Queen's College, Birmingham; Percy Coleman, M.R.C.S., L.R.C.P. Lond., St. Thomas's Hospital; Sodeinde Akisiku Leigh-Sodipo, University College, London; Hubert Llewellyn Rutter, M.R.C.S., L.R.C.P. Lond., London Hospital; Louis George Charles Vintras, M.R.C.S., L.R.C.P. Lond., B.Sc. Paris, St. Mary's Hospital.

Bachelor in Surgery.—Allan Gordon Russell Cameron, St. Mary's Hospital; Henry Arthur H. Claridge, Queen's College, Birmingham; Percy Coleman, M.R.C.S., L.R.C.P. Lond., St. Thomas's Hospital; Henry Augustus Collinson, Taylor Dixon, Frank Hawthorn, Wm. Martin, B.A., Arthur Alexander Joseph McNabb, Edgar Mitchell, James Peacock, and Robert Sterling, B.A., all of the College of Medicine, Newcastle-on-Tyne; James Alexander Wood Watts, M.R.C.S., L.R.C.P. Lond., Owens College; Francis Burchett Rutter, London Hospital; Hubert Llewellyn Rutter, M.R.C.S., L.R.C.P., London Hospital.

The Licence in Sanitary Science was received by

Cornelius Scamp Hall, M.R.C.S., L.S.A.

ROYAL UNIVERSITY OF IRELAND.—The following candidates have passed the Second Examination in Medicine of the University:—

Upper Pass Division.—Richard Allan, *Emily Eberle, Thos. D. Luke, *Edward P. McLoughlin, Jeremiah O'Callaghan, *Tim. J. O'Meara. (Those marked with an asterisk may present themselves for the further examination in Honours.)

Pass.—Robert H Allan, William T. Allan, Joseph D. Boyd, James Cunningham, William J. Forbes, David Henry, Mortimer Hynes, Joseph Lowry, Denis McCarthy, Joseph McGrath, Robert A. McLaughlin, James Munce, Daniel J. O'Connor, David O'Donnell, Jeremiah Reidy, John D. Rice, William D. T. Thompson, Joseph H. Whittaker.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following candidates have passed the Third Professional Examination:—

H. C. Beasley, M. S. Bell, O. W. Elaner, H. C. Falkiner, G. A. Fleming, J. V. Griffin, A. A. Hargrave, R. H. H. Hayden, T. W. P. Hayes, C. A. Hayman, A. X. Lavertine, P. J. Liston, G. F. J. Luther W. L. Martin, J. H. Maunsell, A. E. McCann, W. F. A. McCann H. J. McCormack, C. J. Nally, W. O'Donnell, P. Peacocke, F. W Perry, J. C. Perry, W. G. Posnett, T. Redahan, J. Robinson, N. J Townsend, A. H. White, W. A. E. Wells, Thos. Wilson, T. F. Wyse

METROPOLITAN OPEN SPACES. — The London County Council has acquired possession, at a cost altogether of £51,310, of the Homestall Farm, Peckham Rye, comprising nearly forty-nine acres—an addition to the Rye which raises the acreage to 100 acres.

LITERARY INTELLIGENCE.—Messrs. Crosby Lockwood and Son will issue next month the second edition, carefully revised and considerably rewritten, of "Our Temperaments, their Study and Teaching—a Popular Outline," by Alexander Stewart, F.R.C.S.Edin. To the portraits of the first edition those of Pope and Sterne, with quotations showing the association of mental with physical characteristics, have been added, and chromo-lithographs from drawings by Lockhart Bogle of temperaments very often seen appear for the first time. Indices have also been added.—We have received a copy of the first number of *Sala's Journal*, a new "weekly magazine for all." The name and photograph on the title-page afford a sure guarantee that the new journal will appeal to a very large constituency. Mr. Sala is evidently bent on combining instruction with amusement. He cannot do better; for people require to be educated in physiological truths even more than in philosophy. By teaching them how to be *gourmets* and not *gourmands*, in literary pursuits as well as in gastronomics, much nervous energy will be conserved and tranquility of mind induced. Mr. Sala's *Journal* has commenced well, and quotations from THE LANCET have found a place in its columns. He will perhaps pardon us for a suggestion relative to the outside of his journal. In colour it is too suggestive of the "pale primroses that die unmarried." It is certainly distinctive, but without appealing to the æsthetic sense. We have a vivid recollection that some sixty years ago a medical contemporary, playfully called by the editor of THE LANCET the "Yellow Goth," suffered much at the hands of certain evil disposed persons on account of the colour of its covers, and was finally forsaken by the profession. We feel sure that in the hands of so able and well-known a journalist better things will come of *Sala's Journal*.

FOOTBALL CASUALTY.—Last week, during a game, at Letterkenny, Donegal, a young man fractured his leg.

A CENTENARIAN.—Mrs. Eliza Allison has just died at Chapel House, Richmond, at the age of 101. She was born on the 20th of August, 1790, and enjoyed good health until a short time before her death.

GLASGOW SOUTHERN MEDICAL SOCIETY.—At an ordinary meeting of this Society held on April 28th, (Dr. Alexander Miller president), Dr. Peter Fergusson, was unanimously voted the diploma of the Society on the occasion of his leaving Glasgow to commence practice in the Western States of America. This is only the third time that this honour has been conferred on a member of this Society since its foundation nearly sixty years ago.

PROSECUTION UNDER THE PHARMACY ACT.—At Leicester a case of considerable importance to chemists was heard in the County Court, when the Pharmaceutical Society conducted a prosecution under the Pharmacy Act, 1868. It appears that the defendant, an unqualified man, sold a preparation of opium to an officer of the Society, which, however, was dispensed by a qualified man employed by him. His Honour decided that the defendant had incurred the penalty under the Act, and gave judgment for £5 and costs.

PRESENTATION.—Professor J. M'Fadyean, of the Royal (Dick) Veterinary College, Edinburgh, was on Monday presented, on the occasion of his leaving (having been appointed to the post of Dean of the Royal Veterinary College, London), by the teaching staff, past and present pupils of the college, and other personal friends, with an illuminated address, a silver tea and coffee service, and a gold watch. Professor McFadyean, prior to his becoming M.R.C.V.S, took the degrees of M.B., C.M., B.Sc., in the University of Edinburgh.

ASYLUM FOR IDIOTS, EARLSWOOD, REDHILL.—The annual report shows that during the past year steady progress in the work of the institution has been made in all the departments. Cases from all classes in society were applying for admission. Scientific modes of training, both physical and mental, were marked with complete success, and 2810 patients had been under the care of the institution, during the forty-five years of its existence. The anniversary festival took place at the Savoy Hotel on Tuesday, Mr. Alderman Faudell Phillips presiding. In proposing the toast, the "Earlswood Asylum, the Board of Management and the Staff," the chairman earnestly advocated the claims of the asylum for generous public financial support. The subscriptions announced amounted to upwards of £2000.

MEDICAL PROTECTION SOCIETY.—The first annual general meeting of the London and Counties Medical Protection Society, Limited, was held on Monday, April 25th. The objects of the Society are to protect, support, and safeguard the character and interests of legally qualified medical and dental practitioners. The general meeting unanimously expressed its belief in the desirability of establishing such a society. The Society dates the commencement of its operations from May 1st, 1892, and the annual subscription of 10*s.* becomes due in advance on May 1st in each year. The following is a list of the officers and Council of the Society, but the list of vice-presidents is not yet complete. President: Jonathan Hutchinson, LL.D., F.R.C.S., F.R.S. Vice Presidents: F. H. Alderson, M.D; D. Balding, F.R.C.S., J.P., Royston; Geo. Anderson Critchett, M.D., F.R.C.S.Edin.; H. Radcliffe Crocker, M.D., F.R.C.P.; T. Colcott Fox, M.B., F.R.C.P.; H. S. Goude, M.D., F.R.C.S.Edin.; C. J. Hare, M.D., F.R.C.P.; Chas. Scott Kilner, M.B., Bury St. Edmunds; John Williams, M.D., F.R.C.P., and others. Council: E. C. Beasley, F.R.C.S., Hampstead; Andrew Clark, F.R.C.S.; W. Bruce Clarke, M.B., F.R.C.S.; C. M. Fegen, L.R.C.P.Edin., Brandon, Suffolk; George Henty, M.D.; Jonathan Hutchinson, jun., F.R.C.S.; E. Hooper May, M.D., F.R.C.S.; J. Knowsley Thornton, M.B., C.M.; and C. S. Tomes, M.A., F.R.S. Treasurer: Geo. A. Heron, M.D., F.R.C.P., 57, Harley-street, W. Hon. Secretaries: George B. Mead, Mentmore, Newmarket, and Hugh Woods, M.D., 11, Archway-road, Highgate, N.

THE COTTAGE HOSPITAL, WARMINSTER.—A new wing to this hospital was formally opened last week.

RESIGNATION OF A MEDICAL OFFICER.—Mr. F. M. Corner has resigned his position of medical officer of health to the Poplar District Board of Works, on the ground that recent legislation, notably the Public Health Act, has so increased his duties that he cannot conscientiously fulfil them.

WELLINGTON COLLEGE.—It is said that the sanitary works at the College, under the supervision of Mr. Rogers Field, C.E., are now, in all substantial points, nearly completed, including extensive surface and subsoil drainage of the estate. Notice has been given, with Mr. Field's sanction, that the school will reassemble at Wellington College on Tuesday, May 10th.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on May 2nd, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	239*	67	1	21	..	328	442
North-Western Hospital	230	33	..	7	1	271	411
Western ,,	84*	23	..	2	5	114	224
South-Western ,,	205	34	..	9	3	251	350
South-Eastern ,,	262*	11	1	11	5	290	424
Northern ,,	387	40	..	5	..	432	480
Totals	1407	208	2	55	14	1686	2331

* Infant and mother.

SMALL-POX.—*Atlas* hospital ship, 51.

MEDICAL NOTES IN PARLIAMENT.

Prison Surgeons.

IN the House of Commons, on April 29th, Dr. Clark asked the Secretary to the Treasury whether it was the case that the surgeons of Northampton Prison, with a daily population of 104 and commitments of 1140, and Shrewsbury Prison, with a daily population of 95 and commitments of 1290, each received a salary of £110 per annum, while the surgeons of Dundee Prison, with a daily population of 109 and commitments of 3560, and of Ayr Prison, with a daily population of 70 and commitments of 1750, received respectively £80 and £70 per annum; why the salary of the Ayr Prison surgeon had been reduced; and under what rules were these salaries determined. Sir J. Gorst: I have no information to enable me to check the accuracy, or otherwise, of the numbers quoted. The salary at Ayr was recently revised, on the death of the former surgeon, so as to correspond more closely to the present scale at other prisons in Scotland. The salaries of prison surgeons in Scotland who do not give their whole time to the public are fixed, so far as possible, with reference to the number of commitments and daily average number of prisoners at the time when the surgeons are appointed, a maximum of £80 being fixed in accordance with the recommendation of a committee which sat in 1879.

Small-pox in the West Riding.

Dr. Tanner asked the President of the Local Government Board whether his attention had been called to the fact that an epidemic of small-pox now prevailed in Dewsbury, Batley, and the neighbourhood known as the heavy woollen district, and had led to heavy local expenditure in providing for the necessities of the case; whether complete isolation of persons capable of spreading infection was attended to, and whether the origin of the epidemic could be traced to inefficient vaccination.—Mr. Ritchie: I am aware that there has been an outbreak of small-pox in the district referred to in the question. The Town Councils of Dewsbury and Batley have provided some hospital accommodation, but I cannot state that the arrangements in the district are such as adequately to provide for the complete isolation of all persons capable of spreading infection, although the necessity for providing such means of isolation has on several occasions been urged on the sanitary authorities by the Local Government Board. The questions of the origin of the epidemic and of its relation to vaccination are being investigated for the Royal Commission on Vaccination by Dr. Sidney Coupland of the Middlesex Hospital, who has already been in the district for some weeks.

Welsh Medical Inspectors.

In the House of Commons, on May 3rd, in answer to Mr. G. O. Morgan, Mr. Long said it was stated by the President of the Local Government Board, in reply to a question a short time since, that in the event of his having to fill up a vacancy in the office of medical inspector, where the duties of the officer would chiefly be in Wales, and he had before him two candidates who, apart from the question of the Welsh language, were in all respects equally well qualified for the position, he would be willing to give the preference to the candidate with a knowledge of the Welsh language. I cannot give any further undertaking on behalf of the President of the Local Government Board.

The Public Health Amendment Act.

On May 4th, in answer to Mr. J. M'Carthy, Mr. Jackson said: The regulations relating to the Public Health Amendment Act, 1890, were duly prepared by the Irish Local Government Board and laid before Parliament in accordance with the Act.

Medical Officers in the Navy.

In answer to Dr. Tanner, Lord G. Hamilton said: A certain number of surgeons of the Royal Navy, after returning from service afloat, are now permitted annually to attend metropolitan hospitals for a time on full pay, and the experiment has been attended by satisfactory results.—Dr. Farquharson asked whether the same privilege would be extended to the medical officers in the Army Medical Department.—Mr. Brodrick: I must ask for notice of that question.

Army Medical Staff.

On Thursday in the House of Commons Dr. Tanner asked the Secretary of State for War whether any steps would be taken to remove the disability under which officers in the Army Medical Department suffer as regards precedence at mess; and whether such disability was always in existence, or when instituted.—Mr. Brodrick, who replied, said that medical officers suffered no disability as regards precedence at mess. At their own mess they took precedence according to rank. At other messes they were honorary members, and like other honorary members had no precedence under the rules of the service.—Dr. Tanner asked the hon. gentleman whether his attention had not been called to the correspondence on this subject which had taken place in the medical journals.—Mr. Brodrick replied that he had not seen the correspondence.—Dr. Tanner recommended him to read it.

The Hampstead Disaster.

In reply to a question by Mr. Brodie Hoare, Sir M. Hicks Beach said that he had not yet received the inspector's report on the Hampstead Heath accident, but he had been in communication with the company, and was informed that, although the plan had not been actually decided upon, such structural alterations would be made and increased means of access to the platforms provided before Whitsuntide as would, it was hoped, together with other means taken by the company, remove all risk of further misfortune.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ADAMS, J. D., M.D. St. And., M.R.C.S., has been reappointed Medical Officer of Health for the Yeovil Rural Sanitary District.

ANDERSON, WM., M.B., C.M. Glasg., has been appointed Resident Assistant Medical Officer of the Aberdeen Infirmary.

ARCHER, H. R., M.D. Lond., L.R.C.P., has been reappointed Medical Officer for the First Sanitary District of the Royston Union.

BAINES, J. C., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Malvern Sanitary District of the Upton-upon-Severn Union, vice Weir.

BALDWIN, THOS. A., M.D. Dub., L.R.C.S. Irel., has been appointed Medical Officer of Health to the Sculcoats Rural Sanitary Authority.

BINDLOSS, A. H., M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Milbourn Sanitary District of the Royston Union, vice Reynolds.

BLANEY, R., M.B., C.M. Glasg., has been appointed Medical Officer for the No. 7 Sanitary District of the Battle Union.

BOWEN-JONES, L. M., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health to the Carmarthen Rural Sanitary Authority.

BRODRICK, C. C., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer for the Whitchurch and South Lydford Sanitary Districts of the Tavistock Union.

BULLMORE, WM. K., M.D. St. And., M.R.C.S., has been reappointed Medical Officer of Health for the Falmouth and Truro Ports.

CHEESEWRIGHT, JOHN F., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Greasbrough Urban Sanitary District.

COLE-BAKER, GEORGE, B.A., M.B., B.Ch., B.A.O. Dub. Univ., L.M. Rotunda, has been appointed Assistant Master to the Coombe Lying-in Hospital and Guinness Dispensary, Dublin.

CROSS, G. F., M.B., B.S. Durh., has been appointed Medical Officer for the Fineham Sanitary District of the Downham Union.

FORSYTH, ROBT., M.D., C.M. Glasg., has been reappointed Medical Officer of Health for the Birstal, Birkenshaw, and Drighlington Urban Sanitary Districts.

GILCHRIST, JAMES, M.B., C.M. Glasg., has been appointed Parochial Medical Officer for the Inverkip District of the Parish of Inverkip, Renfrewshire.

GRANT, J. W., M.B., C.M. Edin., has been appointed Medical Officer for the Eighth Sanitary District of the Newport Pagnell Union.

HAMILTON, A. A., M.B., C.M. Dub., has been appointed Honorary Assistant Physician to the Adelaide Hospital, South Australia.

HARROLD, R. E., M.B., C.M. Edin., has been appointed Assistant Honorary Surgeon to the Adelaide Hospital, South Australia.

HARRIS, SPENCER C., L.F.P.S., L.M. Glasg., has been reappointed Medical Officer of Health for the Ely Urban Sanitary District.

HARVEY, J. T., M.B., C.M. Edin., M.R.C.S., M.B. Melb., has been appointed Physician to the Broken Hill Dispensary, New South Wales, vice Wm. Baly, deceased.

HINDE, F. R. B., M.D., C.M. Edin., M.R.C.S., has been appointed Medical Officer for the Seventh Sanitary District of the Ware Union.

JOHNSON, HY. S., M.R.C.P. Irel., L.F.P.S. Glasg., has been reappointed Medical Officer of Health for the Totnes Rural Sanitary District.

JONES, G. F., M.R.C.S., has been appointed Medical Officer of Health for the Southend Urban Sanitary District of the Rochford Union.

JONES, W. M., M.R.C.S., D.P.H. Camb., has been reappointed Medical Officer of Health for the Swinton Urban Sanitary District.

JOSHUA, FRANCIS WM., L.R.C.P., L.R.C.S., L.M., has been appointed Consulting Surgeon to the Great Malvern Provident Dispensary.

LANSDOWN, G. P., M.B., B.S. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Anæsthetist to the Bristol General Hospital.

LUMLEY, BARTHOLOMEW, M.R.C.S., L.M., has been reappointed Medical Officer of Health for the Northallerton Urban and Rural Sanitary Districts.

MACINTOSH, DUNCAN, M.B., C.M. Glasg., has been appointed Resident Assistant Medical Officer of the Aberdeen Infirmary.

MORTON, C. A., L.R.C.P. Lond., M.R.C.S., has been appointed Registrar to the Bristol General Hospital.

MOSSOP, A. G., L.R.C.P., L.M., L.R.C.S. Irel., M.R.C.S., has been reappointed Medical Officer of Health for the Port of Newhaven.

MURDOCH, W. H., M.D., M.Ch. Irel., has been appointed Medical Officer for the Branch Workhouse of the Parish of Liverpool.

NIX, H. W., M.B. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Workhouse and Infirmary of the Parish of St. Marylebone.

OGDEN, CHAS., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Milnrow Urban Sanitary District.

PRATT, JOHN W., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health to the Wiveliscombe Local Board.

ROBINSON, JAS., M.D. Brux., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Turton Urban Sanitary District of the Bolton Union.

SAWYER, ROBT. H., M.R.C.S., has been reappointed Medical Officer of Health for the Shaftesbury Rural and Urban Sanitary Districts.

SPRENT, W. S., L.K.Q.C.P., L.R.C.S. Irel., has been appointed Medical Officer for the Hovingham Sanitary District of the Malton Union, vice Watt, resigned.

STRATON, CHAS. R., L.R.C.P., F.R.C.S. Edin., has been reappointed Medical Officer of Health for the Wilton Urban Sanitary District.

TEMPLEMAN, CHARLES, M.D., B.Sc., has been appointed Surgeon to the Dundee Royal Infirmary.

TWINING, ALFRED H., M.R.C.S., D.P.H. Camb., has been reappointed Medical Officer of Health for the Kingsbridge Rural Sanitary District.

YEARSLEY, PERCIVAL MACLEOD, M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Western General Dispensary, Marylebone-road.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ADDENBROOKE'S HOSPITAL, Cambridge.—Resident House Surgeon. Salary £65 per annum, with board, lodging, and washing in the hospital.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Resident Medical Officer for one year. Salary £80 per annum, with board and residence.

COUNTIES' ASYLUM, Carlisle.—Junior Medical Assistant.

COUNTY OF DURHAM.—Medical Officer. Salary £500 per annum, with reasonable travelling expenses in addition.

GENERAL HOSPITAL, Nottingham.—Assistant House Physician for six months. Board, lodging, and washing in the hospital provided.

GENERAL HOSPITAL, Nottingham.—Assistant House Surgeon for six months. No salary. Board, lodging, and washing in the hospital provided.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.—Resident Medical Officer. Salary £50 per annum, with board and lodging.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Medical Registrar and Pathologist for one year. Honorarium of 50 guineas at the expiration of that term.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Resident House Physician for one year. Salary £60 per annum, with board and residence in the hospital.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Assistant House Surgeon (non-resident), for one year. Salary £50.

LANCASTER INFIRMARY AND DISPENSARY.—House Surgeon (unmarried). Salary £80, with residence, board, attendance, and washing.

LEWES DISPENSARY AND INFIRMARY, AND VICTORIA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, furnished apartments, coal, gas, and attendance.

NORTHAMPTON FRIENDLY SOCIETIES' MEDICAL INSTITUTE.—Assistant Medical Officer (out-door). Salary £200 per annum, with part Midwifery fees. (Apply to the Secretary, 22, Cromwell-street, Northampton.)

PLYMOUTH BOROUGH ASYLUM, Blackadon, Ivybridge, Devon.—Assistant Medical Officer. Salary £125 per annum, with quarters, board, and washing.

ROTHERHAM HOSPITAL.—Assistant House Surgeon for six months. Rooms, commons (exclusive of alcoholic drinks), and washing will be provided in the hospital in lieu of salary.

ROYAL ALBERT EDWARD INFIRMARY, Wigan.—Junior House Surgeon. Salary £80 per annum, with apartments and rations, exclusive of wines, spirits, and washing.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Five Examiners in Anatomy and Four in Physiology.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Junior House Surgeon. Salary £50 per annum, with board and apartments.

Births, Marriages, and Deaths.

BIRTHS.

BELL.—On April 28th, at Upgate, Louth, Lincolnshire, the wife of Charles W. J. Bell, M.R.C.S., of a son.

BOUCHER.—On May 1st, at Hertford, Herts, the wife of Arthur H. Boucher, M.D., of a daughter.

BULL.—On April 27th, at St. Oswald's House, Stony Stratford, the wife of William H. Bull, F.R.C.S., of a son.

HARKNESS.—On May 1st, at Oak-villas, Stamford-hill, the wife of Alex Harkness, L.R.C.P., L.R.C.S., of a son.

MACKAY.—On April 23rd, at Hornby, Lancaster, the wife of Ian D Mackay, M.B.C., M.B.A., of a daughter.

MILLER.—On April 23rd, at Horwoods, Basingstoke, the wife of Frederic D. Miller, M.D., of a daughter.

RUSSELL.—On April 26th, at The Lawn, Lincoln, the wife of Dr. Russell, of a daughter, who survived her birth only a few hours.

WILSON.—On April 28th, at Coates-crescent, Edinburgh, the wife of Dr. Blair Wilson of Florence, of a daughter.

MARRIAGES.

BROWN—CUMMINGS.—On April 30th, at Holy Trinity Church, Tulse-hill, Osmond Percy Brown, M.R.C.S., son of Henry Osmond Brown, M.R.C.S., of Knighton, Radnorshire, to Alice Clara, elder daughter of William H. Cummings, F.S.A., of West Dulwich.

CRANSTOUN—WISE.—On April 28th, at the Church of St. Simon, Southsea, Charles Bruce Cranstoun, M.B., youngest son of the late John Cranstoun, Ludlow, to Margaret Selina, widow of the late Commander C. J. Wise, R.N.

EARLE—ARNOLD.—On April 30th, at St. Mary Abbott's, Kensington, Hamilton E. L. Earle, Surgeon R.N., only son of Rear-Admiral Hamilton Earle, of Lymington, Hants, to Katharine Lilian, only daughter of Sir Edwin Arnold, K.C.I.E., C.S.I.

HALL—NETTLES.—On March 7th, at Rurki, N.W.P. India, E. A. W. Hall, M.B., C.M., I.M. Staff, to Alice, daughter of Major Nettles, and granddaughter of Col. Harry Nettles.

HOUGHTON—SQUAREY.—On May 3rd, at Bebington Church, by the Rev. Canon Feilden, assisted by the Rev. Frank Ellerton, Philip Arthur Houghton, M.R.C.S., L.R.C.P., of 8, Fitzjohn's Avenue, South Hampstead, to Léonie Mabel, youngest daughter of A. T. Squarey, Esq., of Gorsey Hey, Bebington, Cheshire.

MAY—BALDOCK.—On April 29th, at Hyde Church, Winchester, Arthur William May, Staff Surgeon R.N., son of the Rev. H. May, late Vicar of South Petherwyn, Launceston, to Adelaide Gibson, youngest daughter of the late Wm. Baldock, Esq., of Fernlea, Southampton.

PHILLIPS—HOWARD.—On April 28th, at St. Antholin's Church, Nunhead, Stanley Clyde Phillips, L.R.C.P., M.R.C.S., of Earlsfield, to Alice, the eldest daughter of John Howard, Esq., of Windsor Lodge, Nunhead, S.E.

ROALFE COX—ORD.—On April 27th, at St. George's, Hanover-square, by the Rev. Philip Bainbrigge, Vicar of St. Thomas's, Regent-street, Walter Roalfe-Cox, M.R.C.S., L.R.C.P., of The Laurels, Mortimer, Berks, to Violet, second daughter of William M. Ord, M.D., of 37, Upper Brook-street, Grosvenor-square.

WEDGWOOD—STOCKTON.—On April 27th, at the Parish Church, Banbury, by the Rev. C. F. Porter, Vicar, William Brackenbury Wedgwood, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., of King's Lynn, Norfolk, to Margaret, eldest daughter of James Stockton, South Bank, Banbury.

DEATHS.

ASHDOWN.—On May 3rd, at Ventnor, Isle of Wight, George Ashdown, M.R.C.S. Eng., in his 69th year.

BRACE.—On May 3rd, at Queen's-gate terrace, S.W., suddenly, Wm. H. Brace, M.D., aged 68

CHEYNE.—On May 4th, at 59, Welbeck-street, Mary Frances, daughter of W. Watson Cheyne, F.R.C.S.

DIPLOCK.—On April 29th, at Mornington House, Chiswick, Thomas Bramah Diplock, M.D., M.R.C.S., Coroner for the Western Division of the Counties of Middlesex and London, in his 63rd year.

DRURY.—On April 26th, at Lisgmoor, Bournemouth, William Vallancey Drury, M.D., aged 70.

KERR.—On April 28th, at 42, Grove-road, Regent's-park, N.W., Eleanor Georgina, wife of Norman Kerr, M.D., aged 42 years. No cards.

SMITH.—On April 26th, at Wolverhampton, Dr. Charles Smith, aged 41.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, May 9.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. Wm. Lang: Lachrymal Affections.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Lungs, Tubercle and other Lesions.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. A. Wynter Blyth: Sanitary Appliances.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

SOCIETY OF ARTS.—8 P.M. Mr. Percy F. Frankland: Recent Bacteriological and Chemical Research in connexion with the Fermentation Industries.

Tuesday, May 10.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Jonathan Hutchinson: Arsenic and Mercury.—Bethlem Hospital: 2 P.M., Dr. H. Corner: Hypochondriasis.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Dr. W. H. Dickinson: Renal Dropsy, with especial reference to the Circulation, together with some Considerations relating to Pulmonary Apoplexy in Renal Disease (adjourned discussion).—Dr. A. E. Garrod: The Changes in the Blood in the Course of Rheumatic Attacks.

Wednesday, May 11.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Percy Kidd: Laryngeal Tuberculosis.—Royal London Ophthalmic Hospital: 3 P.M., Mr. A. Quarry Silcock: Myopia.

SOCIETY OF ARTS.—8 P.M. Mr. G. L. Addenbrooke: Uses and Applications of Aluminium.

Thursday, May 12.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Mr. Edmund Owen: Selected Surgical Cases from the Wards.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Beevor: Locomotor Ataxia.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Dr. Edward Law: Examination of Throat and Nose Cases.

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square).—8.30 P.M. Dr. G. Cleghorn: Cases of Ectopic Gestation (with pathological report and observations by Dr. Shaw-Mackenzie). Specimens by Mr. Lawson Tait.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (Great Northern Central Hospital).—8.30 P.M. Annual General Meeting. 9 P.M. Short Address by the President (Dr. Wm. Cholmeley). Dr. H. Campbell: Children's Diseases.—Dr. Rattray: Three cases of Suppurating Kidney.

Friday, May 13.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Percy Kidd: Angina Pectoris.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: Cultivation Methods (Examination of Cultivations).—Charing-cross Medical School: 8 P.M., Dr. J. Braxton Hicks: Funis Presentation and Prolapsus.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. F. Paul: A case of Enterectomy.—Mr. Howard Marsh: A case of Spontaneous Cure of two Aneurysms of the Femoral Artery, apparently by Inflammatory Action.—Dr. Francis Hawkins: A case of Non-tubercular Hæmoptysis of four months' duration occurring in association with Cirrhosis of the Kidneys.—Mr. Arbuthnot Lane: Two cases of Tubercular Disease of the Breast and Axillary Glands.

Saturday, May 14.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. H. Corner: Melancholia.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 5th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Apr. 29	29·96	N.E.	42	38	91	51	37	·02	Cloudy
„ 30	30·19	W.	46	42	102	60	35	—	Hazy
May 1	30·19	N.E.	50	45	76	57	41	—	Hazy
„ 2	29·84	N.E.	47	45	62	49	42	..	Overcast
„ 3	29·69	N.E.	45	44	60	48	44	·09	Cloudy
„ 4	29·74	N.E.	46	45	56	50	45	·07	Raining
„ 5	29·96	N.E.	46	42	72	47	40	·02	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

ADVERTISEMENTS OF CHANGE OF RESIDENCE.

A PRACTITIONER advertises in the *Hull Daily News* a temporary change of residence. Such public notices are not called for. It is the custom to be satisfied with an announcement on the old premises of the new address.

Mr. Chas. R. Christie.—We believe the appliances in question to be quack productions, which certainly have never received favourable notice in the columns of THE LANCET.

Mrs. M. Dudley.—There are several such practitioners in the Medical Register, to which we must refer our correspondent.

PAPILLARY PERITONITIS.

To the Editors of THE LANCET.

SIRS,—Would any of your readers be kind enough to give me a few hints in regard to the treatment of papillary peritonitis in a girl aged fourteen? Is an operation of any use? I should feel greatly obliged if anyone having had experience in such cases would reply.

I am, Sirs, yours faithfully,

May, 1892. PENSNETT.

INFLUENZA.

THE following passage from a letter of Lord Chesterfield's, dated July 9th, 1767, is quoted in *Notes and Queries* of April 30th, 1892:—

"You say that Dresden is very sickly. I am sure London is at least as sickly now, for there reigns an epidemical distemper called by the genteel name of *l'influenza*. It is a little fever, which scarcely anybody dies of, and it generally goes off with a little looseness. I have escaped it, I believe, by being here [Blackheath]."

THE SCOTTISH UNIVERSITIES COMMISSION.

A DEPUTATION of representatives of the various medical schools and other educational bodies in Scotland was received by Mr. Balfour at the House of Commons on Wednesday last. The object of the deputation was to procure, if possible, the reconsideration of the ordinances issued by the Scottish Universities Commission, which become final on the 12th and 18th of this month unless Her Majesty should withhold her consent. Representatives of the General Council of the Universities of Glasgow and Edinburgh, of St. Mungo's and Anderson's Colleges, of the Royal Colleges of Physicians and Surgeons of Edinburgh, and of the Reform Association; representatives in all of twelve educational bodies attended. Mr. Balfour however, refused in the meantime to consider the requisition of the deputation, on the ground that Parliament would be taking too great a responsibility upon itself if, after having entrusted the Commission with considerable administrative powers, it should then take upon itself to reject the ordinances which it had framed. The opposition to the ordinances will, we are informed, be pushed forward in Parliament, and it is understood that a motion will be brought forward in the House of Commons on Monday night, asking Her Majesty to withhold her consent from the ordinances.

Dr. R. H. Bakewell.—The subject of leprosy will soon be brought prominently before the medical profession, when we hope to deal with the point mentioned by our correspondent.

Cyclops.—We should hope that our correspondent's account is imperfect or incorrect. A lawyer should be consulted.

M.D. has not enclosed his card.

BACTERIA IN ACUTE RHEUMATISM.

To the Editors of THE LANCET.

SIRS,—Some time ago I sent you a notice of a bacillus which I had met with in certain cases of acute gout. While making further observations in reference to this matter, I have examined the blood in a number of cases of acute rheumatism, and I have found almost invariably that in acute rheumatism the blood is charged with bacteria in the form of minute cocci to a point which might almost be called saturation. These cocci are easily to be seen after floating the cover-glass upon which the blood is taken, for a period of not less than four hours, in a warm solution of methylene blue. I have examined the Indices of THE LANCET and *British Medical Journal* for the past five years, but can find no record of any similar observation. I should be glad to learn if any bacteriological work has been done in reference to acute rheumatism. Dr. Maclagan, in a recent article, assumed the presence of an organism, but did not state if he had actually demonstrated the same. The cocci are exceedingly small, and require a magnification of 1000 diameters to render them at all visible, which is equal to one-twelfth oil immersion with a No. 8 compensating eyepiece. With this power they are just visible, and exhibit a strong disposition to arrange themselves in chains.

I am, Sirs, yours faithfully,

Putney, May 2nd, 1892. EDWD. F. GRÜN.

*** Dr. Mantle of Halifax read a paper at the British Medical Association, at the meeting held in Dublin, on the Etiology of Rheumatism considered from a bacterial point of view. He also published an article in 1885 on Rheumatism with Infectious Sore-throat.—ED. L.

AN AUSTRALIAN ADVERTISER.

"DR. WM. LANGSTON, *M.R.C.S. Eng.*, 121, Collins-street, Melbourne," advertises both his portrait and his great therapeutical powers in all the ordinary newspaper set of discreditable diseases. Has not the Royal College of Surgeons the power to deal with such a member on the score of his advertisements? Be this as it may, he has been fined £20 for putting M.D. on his plate, he being registered only as "M.R.C.S."

Janus.—There are lunatic asylums in various parts of the world under the English Government. We would advise our correspondent to make application direct to the Under Secretary of State for the Colonies, Downing-street, S.W., for information as to appointments &c.

"TREPHINING FOR EPILEPSY."

To the Editors of THE LANCET.

SIRS,—*Apropos* of an annotation in your issue of to-day's date upon trephining for epilepsy, allow me to mention a case I had in my practice six years ago.

A boy twelve years of age was brought to me suffering from "fits." He had been struck with a stone on the forehead four years previously. I found on examination something hard, but movable, under the cicatrix on the forehead. The mother informed me that previously to his "fits" there was a sharp pain felt in the spot. I had him admitted to our cottage hospital, and then, on cutting down upon the hard substance, found a piece of slate firmly embedded in the tissues. This I removed by excising the surrounding tissues widely. The boy was under observation for twelve months, during which time there were no further attacks.

I am, Sirs, yours faithfully,

Hawick, N.B., April 30th, 1892. JOHN R. HAMILTON, M.D.

NEWSPAPER PUFFS OF MEDICAL MEN.

THE blending of domestic history and professional achievement in the following paragraph from *Truth* is very characteristic of the newspaper puff. We have the best reason for knowing that the subject of it disapproves of it as much as any of our readers can do.

> "Mr. Dormer, who was so seriously injured some three weeks back whilst riding the Duke of Hamilton's mare Miss Chippendale at Sandown Park, has made a most miraculously rapid recovery, and is, happily, now almost himself again. The operation of removing one of Mr. Dormer's eyes was performed by Dr. Higgins, who has come very much to the front in recent years. Dr. Higgins married some years ago Miss Greenwood, a niece of Mrs. John Towneley."

Mr. J. Weller.—Our sources of information were the *Essex Telegraph* and the *Essex Standard*, the names of which were given in the paragraph of which our correspondent complains. We may again point out that we did not impute blame to Mr. Weller, whose disclaimer we gladly inserted, but to injudicious friends, who no doubt imagined that laudatory paragraphs in the lay press are of service to medical men, little recking that but harm can come of such a mistaken procedure.

Mr. A. E. Huxtable, M.R.C.S., is thanked for his communication. We think, however, the newspaper paragraph unworthy of notice.

Argus.—Yes. Messrs. Eyre and Spottiswoode.

PUBLIC VACCINATORS AND BOARDS OF GUARDIANS.

To the Editors of THE LANCET.

SIRS,—Having seen in THE LANCET of April 30th (p. 991) an account of the behaviour of the Watford Board of Guardians towards a public vaccinator, I thought my experience in a similar case might be of interest to your readers, as it differs in the treatment received.

I reported two cases to the Tisbury Board of Guardians last Thursday where the mothers refused to allow me to take any lymph from the children's arms. The guardians without any hesitation said they would take notice of the cases, and instructed the clerk to prosecute, the summons to be heard at the next sitting of magistrates, which is Thursday, May 5th.—I am, Sirs, yours faithfully,

GEO. P. LONGMAN,
Public Vaccinator, Donhead District,
May 2nd, 1892. Tisbury Union.

ANTI-VACCINATIONISTS AT GUILDFORD.

THE defeated anti-vaccinationists of Guildford are losing their temper, as they are evidently losing the game. The reappearance of small-pox in the country, and the forebodings that in public opinion and in the estimation of the Royal Commission the protective power of vaccination holds its unique ground, explain this mood, though they do not excuse it. A writer in the *Surrey Advertiser* calls the Commission a packed Commission, and says guardians ought to—not administer the law of the country, but "carry out the views of those that elect them." Government by boards of guardians is a truly imperial idea. But even so, in Guildford common-sense seems to prevail.

Dolores Fleischmann.—We do not know the work in question.

THE TREATMENT OF DIABETES.

To the Editors of THE LANCET.

SIRS,—A daughter of mine, aged twenty-five, who previously had enjoyed robust health, about six months ago showed signs of diabetes. The usual treatment of codeia with nux vomica and the gluten bread speedily reduced the sugar. But although the usual diet is still strictly enforced, the sugar has reappeared, the specific gravity of the urine having risen from 1019 to 1026. Her weight has, however, not decreased since the disease was first noticed. No member of the family has been known to suffer from the disease previously. Can any of your numerous correspondents suggest any further treatment?

I remain, Sirs, yours truly,

Surrey-square, S.E., May 3rd, 1892. W. RUMBOLL, M.R.C.S., L.S.A.

ALLEGED SCARCITY OF MEDICAL MEN IN NEW ZEALAND.

IT is reassuring to read that there is one place where there is not an excess of medical practitioners. It is said that in spite of a guarantee of £100 by the Government, and of £200 additional by the settlers in the east coast district of the North Island of New Zealand, a qualified man cannot be found. The climate, too, is said to be pleasant. All the same, we should not advise a rush thither without further inquiry.

A DISCLAIMER.

To the Editors of THE LANCET.

SIRS,—I have this morning had my attention called to a paragraph in your issue of the 30th ult. on "Advertising through Hospitals," and at once write to disclaim all responsibility in the matter. The advertisement referred to was ordered to be inserted by the secretary of the hospital without any previous intimation to or consultation with me.

I am, Sirs, yours faithfully,

Birmingham, May 3rd, 1892. F. MARSH.

RESIGNATION OF THE BEDELL OF THE ROYAL COLLEGE OF PHYSICIANS.

WITH the resignation of Mr. Gurner of his appointment of bedell of the Royal College of Physicians a familiar landmark of the College passes away. Mr. Gurner has served the College during a period of twenty years, and he is therefore well known alike to Fellows, Members, and Licentiates of the College. The office of bedell carries with it certain grave responsibilities, as may be inferred from the fact that he is required to provide heavy securities for his faithful care of all the property and goods and chattels of the College entrusted to him. He has to issue all notices and summonses relating to the various meetings of the College, and to act as secretary under the direction of the registrar. At meetings of the College he has to carry the mace, and he has to be in attendance at all lectures delivered in the College. He also has authority over the entire household, and has to direct, superintend, and be responsible for the proper performance of the several duties of each member of the household. These manifold duties Mr. Gurner has fulfilled with such regularity that his resignation will cause a blank in the meetings of the College. It is to be hoped that the Finance Committee, to whom the question of a pension has been referred, may see their way so to recognise Mr. Gurner's services as to place him beyond anxiety in his advancing years.

Senator.—A select committee of the Cape House of Assembly was appointed on July 25th, 1883, "To inquire into and report upon the spread of leprosy at the Cape." A Leprosy Repression Act was passed by the Cape House of Assembly in 1884.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir James Crichton-Browne; Messrs. Blondeau et Cie., London; Dr. Fletcher Beach; Messrs. Broatch and Hall, Keswick; Messrs. J. Ball and Sons; Mr. Benedict, Chelsea; Dr. Barnard, Alderney; Messrs. Barker and Son; Mr. Birchall, Liverpool; Mr. T. Bell, Lancaster; Messrs. Cox and Co., Brighton; Dr. C. P. Coombs, Somerset; Messrs. Clay and Son; Mr. Cathrae, Newcastle-on-Tyne; Messrs. Crossley, Moir, and Sons, London; Dr. S. L. Clift, Bournemouth; Mr. Chas. R. Christie, Edinburgh; Dr. Campbell, Carlisle; Messrs. Crosby Lockwood and Sons; Dr. Dowse, London; Mr. Duffus, Bournemouth; Dr. J. Walker Downie, Glasgow; Mr. L. B. Diplock, Chiswick; Messrs. Davies and Co., London; Mr. Downer, Birkenhead; Mr. F. J. Davies, Newport, Mon.; Mr. Draper, Huddersfield; Dr. W. Elder, Leith; Mr. Fogarty, London; Mr. E. J. Figg; Mr. J. M. Finzi; Mr. H. R. Foquett, Ilfracombe; Mr. E. F. Grün, Putney; Mr. Griffiths, Bristol; Dr. Grierson Gledhill, London; Dr. M. Granville, London; Messrs. Godfrey and Cooke, London; Mr. W. Gregson, Southend; Messrs. C. Griffin and Co.; Mr. Thos. Gloster, Walsall; Dr. Griffith, Manchester; Mr. A. G. Huxtable, Malmesbury; Dr. Hyde, Buxton; Dr. A. Harkin, Belfast; Dr. Hime, Bradford; Mr. Hornibrook, London; Mr. Jenkins, Bungay; Mr. Keely, Nottingham; Mr. Knoebone, Bedford; Mr. Laban, West Bromwich; Dr. Lawton, Poole; Dr. Little, London; Messrs. Lee and Nightingale, Liverpool; Dr. Reg. H. Lucy, Plymouth; Messrs. Munton and Morris, London; Mr. Mosse, London; Dr. Murray, Swinburne Castle, Northumberland; Dr. J. Macpherson, Larbert; Dr. Maclauchlan, Edgbaston; Dr. Neatby, Chingford; Messrs. Oliver and Boyd; Mr. R. O'Callaghan, Carlow; Mr. Preston, London; Dr. G. H. Philipson, Newcastle; Mr. Pearson, London; Dr. F. A. Purcell; Dr. J. Inglis Parsons; Mr. C. Puzey, Liverpool; Mr. O. Pemberton, Birmingham; Dr. B. W. Richardson; Mr. A. Rajasingham, Aberdeen; Dr. James A. Rigby, Preston; Mr. Rowland, Stockport; Messrs. Rowntree and Co., York; Mr. Reid, Rotherham; Mr. Sell; Messrs. W. H. Smith and Son, Manchester; Messrs. Stern, London; Messrs. Smith, Elder, and Co., London; Mr. Smith, Westgate-on-Sea; Messrs. G. Street and Co., London; Dr. G. A. Sutherland; Mr. A. C. Shoppee; Messrs. Shelley and Co.; Mr. H. A. Schlesinger; Mr. Philip Skene; Messrs. S Smith and Co., Bow; Mr. Taberner, Wigan; Rev. A. Tooth; Mr. Lawson Tait; Dr. A. S. Tindal, Glasgow; Mr. Spencer Todd; Messrs. J. and T. Usher, Bristol; Mr. Vickers, London; Messrs. Wright, Layman, and Umney, Southport; Mr. Wood, Leicester; Mr. J. Weller; Dr. Wynn Westcott; Mr. Williamson, Lincoln; Mr. Walsh, Bursiem; Dr. Roger Williams, Preston; Mr. Wand; Mr. Wilson, Dublin; Mr. Walter L. Woolcombe, Plymouth; Alpha, Yorkshire; G. G., Pembrey; Sanitary Wood Wool Co.; Onyx; M.D.; Surgeon, Bristol; Lapis; Manager, *Durham Advertiser*; Presto, London; Cyclops; Pensnett; Reuter's Telegram Co., London; S. C. S., Ealing; Burrow's Drug Stores, London.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. T. Jones, Bridgend; Mr. Wheeler, Manchester; Messrs. Whitworth and Stuart, Manchester; Mr. Piggott, Cambridge; Messrs. Wright and Co., Bristol; Dr. Wittington, Yorks; Messrs. Fletcher, Fletcher, and Co., London; Mr. Ideson, Colne; Mr. Brookes, Salop; Messrs. Hardy and Co., Manchester; Mr. King-Lewis, Devon; Messrs. Hooper and Co., London; Dr. Humphreys, Montgomery; Messrs. Savory and Moore, London; Mrs. Tyte, Minchinhampton; Messrs. Margrave Bros., Llanelly; Mr. Knight, Northampton; Dr. Williams, Tottenham; Mr. Evans, Llanberis; Mr. Elliott, Strabane; Dr. Redwood, Rhymney; Mr. Brew, Kerry; Mr. Fiske, Norfolk; Mr. Eyre, Eastwood; Dr. Owen, Doncaster; Mr. Thin, Edinburgh; Mr. Owen, Llandilloes; Mr. Maxwell, Banbury; Mr. Hannay, Grasmere; Mr. Keay, Eastbourne; Mr. Norman, Ashburton; Mr. Agar, Peterborough; Mr. Millendorp, Groningen; Mr. Utting, Liverpool; Mr. Brocklesby, Grimsby; Mr. Williams, Oxford; Mr. Hardy, Huntley; Mr. Ralph, Walthamstow; Mr. Lloyd, Llanarthney; Messrs. Brown, Gould, and Co., London; Mr. Lucas, Cambs.; Mr. Mainwaring; Dr. Nevin, West Auckland; Dr. Sykes, Barnsley; Mr. Ruch; Mr. Joyce, Rhondda Valley; Mr. McCall, Yorks; Mr. Breach, Newbury; Dr. Nicholls, Bury St. Edmunds; Miss Walker, London; Dr. Bellis, London; Mr. Hall, Edinburgh; Mr. Heywood, Manchester; Mrs. Turner, Finsbury-park; Dr. Thomson, Norwich; Mr. Hounell, Bournemouth; Spes; B. M., London; Cash, London; Medicus, Yorks; Secretary, Salford Royal Hospital; Companion, Cheshire; Medicus, Strand; Victoria Hospital, Folkestone; Ergotine, London; Sextus, London; Military Equipment Stores, London; Hall, Malvern; Secretary, Royal Albert Hospital, Devonport; Graduate, London; Maltine Manufacturing Co., Bloomsbury; P., Leeds; F. L. M., London; Secretary, Victoria Hospital for Children, Chelsea; Vicar, Burton-on-Trent; Medicus, Manchester; N. E. W., London; Appleby, London; B., Barrow-in-Furness; Alpha, Leeds; Veritas, London; Delta, London; F. H. O., London; Proprietress, Winchelsea; H., Worthing; Tutor, Newcastle-on-Tyne; Kappa, London; Dr. O., London; Mrs. F., Edinburgh; Medicus, Bedford; Fellowship, London; Dux; Invalid, London; W. L.; E. F.; D. H., Bath; M.B.; Shaftesbury; L. M.

NEWSPAPERS.—*South Wales Echo, Scottish Leader, Sussex Daily News, Bristol Mercury, The World (New York), Leeds Mercury, Observer (South Australia), Daily News, Star (Auckland, N.Z.), Western Daily Mercury, South Wales Daily News, Leicester Daily Post, Scotsman, Law Journal, Health, Evening Express (Liverpool), Argus (Brighton), Le Temps (Paris), Sanitary Record, Reading Mercury, Windsor and Eton Gazette, Surrey Advertiser, Dundee Advertiser, Radical Review, Local Government Chronicle, City Press, Weekly Free Press and Aberdeen Herald, Liverpool Daily Post, Mining Journal, Hertfordshire Mercury, Guy's Hospital Gazette, Windsor and Eton Express, Toronto Mail, Architect, Eastern Morning News, Bombay Gazette, Builder, Metropolitan, Montreal Gazette, Manchester Guardian, Royal Cornwall Gazette, West Middlesex Advertiser, Oban Times, Insurance Record, South Shields Gazette, Bayswater Chronicle, Essex Weekly News, Midland Evening News, Denbighshire Free Press, Public Health, Carlisle Journal, Citizen, &c.*, have been received.

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